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Environmental Consultants



FOURTH AVENUE AND GAMBELL STREET ANCHORAGE, ALASKA

PHASE **n** ENVIRONMENTAL SITE ASSESSMENT

**MAY 2005** 

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Submitted to:

**PAUL MANEY** 

Submitted by:

BGES, INC.

JUN 0 to 2005

CONSERVATION

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DEPT. OF ENVIRONMENTAL CONSERVATION

# FOURTH AVENUE AND GAMBELL STREET ANCHORAGE, ALASKA

# PHASE II ENVIRONMENTAL SITE ASSESSMENT

**MAY 2005** 

Submitted to:

**Paul Maney** 

Submitted by:

BGES, INC.

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#### 1.0 INTRODUCTION

BGES, Inc. (BGES) was retained by Mr. Paul Maney, owner of the subject property, located between Gambell and Hyder Street and along 4<sup>th</sup> Avenue (Figure 1), to perform a Phase II Environmental Site Assessment (ESA). The Phase II ESA entailed advancement of three soil borings and installation of momitoring wells in these borings along with associated soil and groundwater sampling. The purpose of this sampling was to assess the soil and groundwater quality at the subject site. The fieldwork was performed on March 12<sup>th</sup> and 13<sup>th</sup> (soil borings and monitoring well installations), and April 6, 2005 (groundwater sampling), in accordance with our work plan dated February 16, 2005, and approved by the Alaska Department of Environmental Conservation (ADEC) on February 28, 2005.

#### 2.0 BACKGROUND

The property is located in the downtown (northern) portion of Anchorage, Alaska (Figure 1). The site is currently undeveloped and used as a parking lot for the Anchorage Job Center. The surface at the property is unpaved and generally level. An Alaska Communications System antenna tower is situated on the southeast portion of the property. The property was formerly occupied by a variety of businesses, including C&K Cleaners (which may have been a drycleaners) from approximately 1968 through 1970, and NC Tire Center, which was the last occupant of the building on site. Figure 2 shows the layout of the subject property.

#### 3.0 PREVIOUS SITE WORK

A Phase I ESA was conducted at the subject property in 1993. The findings of the Phase I ESA indicated that underground storage tanks (USTs) were thought to exist at locations in the northeast comer of the property [where we did subsequently encounter USTs as described in our September 2004 Phase II Environmental Site Assessment (ESA) Report], and in the north-central portion of the property, where USTs were not encountered during our subsurface assessment.

A Phase II ESA was reportedly conducted approximately 6 years ago, but the results have not been made available to the current property owner, Paul Maney. It is Mr. Maney's understanding that several USTs were removed and at least one monitoring well was installed. A Phase II ESA was conducted by BGES during the summer of 2004. This site assessment included excavation of six exploratory test pits with associated soil sampling and removal of five hydraulic lifts and two associated hydraulic USTs and two heating oil USTs. A relatively small volume of soils with hydrocarbon concentrations exceeding ADEC cleanup criteria was encountered and removed from the Fourth and Gambell, Phase II ESA

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site for treatment and disposal, during removal of the hydraulic lifts and associated USTs. The test pit excavations revealed numerous soil samples with tetrachloroethene (PCE) concentrations exceeding the ADEC cleanup criterion. In addition, during this assessment, BGES observed an existing monitoring well at the property (Figure 2). This monitoring well, named MW-1, was sampled on October 22, 2004. The groundwater sample exceeded the ADEC cleanup criterion for PCE by four orders of magnitude. Based on the results of the soil and groundwater sampling, and a meeting with the ADEC, it was decided that additional investigation was needed including a well survey; this work is the subject of this report as described below.

#### 4.0 MARCH AND APRIL 2005 PHASE H ESA FIELD WORK

As stated in the approved Work Plan, three soil borings were advanced and completed as monitoring wells. Soil samples were collected during drilling and the monitoring wells were developed and sampled. Top of casing elevations were measured relative to each other and a local surface elevation. A water well survey was performed to identify potential groundwater users in the vicinity of the site. The following paragraphs discuss the results of the Phase II ESA.

#### 4.1 Modifications to the Work Plan

Based on the results of the first soil boring (MW-2), it was decided that sampling would occur on 5-foot intervals from the surface to 18 faet below grade (where the contaminant concentrations appeared to be the greatest), and then continuously to the total depth of the borings.

#### 4.2 Soil Borings and Sampling

A utility clearance for the areas of the soil borings was performed on March 11, 2005. Three soil borings were advanced on March 12 and 13, 2005, using hollow-stem auger drilling technology in the approximate locations shown on Figure 2. Two of the soil borings (MW-2 and MW-3) were advanced to a depth of approximately 45 feet below grade (bg), and one soil boring (MW-4) was advanced to approximately 50 feet bg. Photographs 1 through 3 in Appendix A show the borings being advanced and/or the monitoring wells being completed. The borings were terminated when a clay layer was reached (Photograph 4 in Appendix A) to prevent creating vertical migration pathways to a potential deeper aquifer. Continuous drive split-spoon samples were collected for the entire depth of MW-2 (beginning at 2 feet bg), and at 5-foot intervals until 18 feet bg in MW-3 and MW-4 and then continuously thereafter. The samples were logged with geologic descriptions and a portion of the soil from each split-spoon sample was placed in Ziploc® bags for headspace field screening using a Fourth and Gambell, Phase n ESA

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Photoionization Detector (PID). The soil in the split-spoons was typically also screened directly in the spoon (except during periods of moderate to heavy precipitation).

In general, the soil borings indicated the presence of sand and gravel until a clay layer was encountered near the base of the borings. Groundwater was encountered at about 41 feet bg in MW-2 and MW-3, and at about 45 feet bg in MW-4. Geologic logs describing the soil samples are included in Appendix B. Soils from the boreholes were placed in drums and stored on site for firture disposal (Photograph 5 in Appendix A).

The soil samples that were selected for laboratory analysis, based on the field screening as described below, were placed in laboratory-supplied containers, which were stored in a chilled cooler, until they were hand-delivered under chain of custody protocol to SGS Environmental Services in Anchorage for analysis. As a quality control measure, a trip blank prepared by the laboratory accompanied the samples during the entire sampling and handling process.

## 4.3 Soil Screening and Analysis

The soils that were placed in Ziploc® bags were allowed to warm for up to 1 hour inside a vehicle with a heater, prior to being screened using a Thermo Environmental Instruments 580 EZ PID. The PID was calibrated prior to use with isobutylene calibration gas. After warming, the bags were agitated for approximately 15 seconds, and then the tip of the PID was inserted into the headspace of the bags. The greatest PID reading was recorded for each sample. The results of the PID screening are presented in Table 1 and included on the geologic logs in Appendix B.

It should be noted that none of the borings exhibited any hydrocarbon odors during drilling. The PID readings in the soil samples that were screened from the boreholes ranged from 0 to 69.1 parts per million (ppm). Generally, the samples with the greatest PID readings from each borehole were submitted for laboratory analysis of volatile organic compounds (VOCs) by SW8260B. Samples S-9, collected from MW-2 at 18 to 20 feet bg; S-14, collected from MW-2 at 28 to 30 feet bg; S-19, collected from MW-2 at 38 to 40 feet bg; S-5, collected from MW-3 at 20-22 feet bg; S-11, collected from MW-3 at 32 to 34 feet bg; S-18, collected from MW-3 at 46 to 48 feet bg; S-4, collected from MW-4 at 18 to 20 feet bg; and S-13, collected from MW-4 at 36 to 38 feet bg were submitted for laboratory analysis.

# 4.4 Monitoring Well Installation

All three of the soil borings described above were completed as monitoring wells, with 2-inch diameter polyvinyl chloride (PVC) casings and 20-slot PVC well screens, constructed in the three angered soil borings. The well screens were 10 feet long and placed in such a manner as to approximately bisect the water table at the time of drilling. The sand pack surrounding the casings was composed of No. 8/12 Colorado filter sand. The filter sand extended approximately 1.5 to 2 feet above the top of the well screen. A seal was constructed using bentonite pellets above the filter sand. The monitoring wells were completed with a "flush-grade" construction with a vault box sealed in place with an asphalt patch. Well construction details are included in Appendix B.

# 4.5 Monitoring Well Development

The monitoring wells were developed on April 6, 2005 (MW-2, MW-3, and MW-4) using a disposable, polyethylene bailer (MW-1 was installed previously and presumed to have been developed in the past). The water column in the wells was agitated to suspend as much sediment as possible in the water, which was then removed and placed into a 5-gallon bucket and then transferred to a 55-gallon drum. The drum was stored on site pending the results of the water analyses. Approximately 5 gallons of water were removed from each well, at which time the discharge had slightly less sediment. Because of the volume of sediment still present, the wells were allowed to sit for approximately 30 minutes prior to sampling. The wells exhibited a low to moderate recovery speed during development and sampling.

#### 4.6 Water Elevation Measurements

Prior to monitoring well development and sampling on April 6, 2005, the depths to water in the wells were measured using an electronic water level indicator. The water elevations and groundwater contours are shown on Figure 2. Based on information from this groundwater monitoring, the local groundwater flow direction is to the northeast at a gradient of approximately 0.01 foot per linear foot. The water levels measured in the wells on April 6 were approximately 1.5 to 3.5 feet higher than at the time of drilling for MW-2 and MW-3, and approximately 7 feet higher than at the time of drilling in MW-4. For this reason, the water level in MW-4 was actually higher than the top of the screen at the time of sampling. The depth to water in MW-1 was approximately 0.13 foot lower than the depth to water measured during the October, 2005 monitoring of this well.

# 4.7 Monitoring Well Sampling

The monitoring wells were sampled on April 6, 2005. The volume of water in each well was calculated based on the water elevation and total well depth measurements described above. MW-1 was purged of three well volumes. The remaining wells (MW-2, MW-3, and MW-4) were each purged of more than three well volumes, as part of the development process. Prior to sampling, measurements of pH, conductivity, turbidity, dissolved oxygen, temperature, salinity, total dissolved solids, and oxidation-reduction potential (ORP) were made by placing a bailed sample into a container and utilizing a Horiba U22 water quality meter. These field water quality parameters are summarized in Appendbx C. Only one or two field water quality measurements were made for MW-2, MW-3, and MW-4 since the sampling followed well development, when considerably more than three well volumes were removed, and because of the increased sediment load.

A disposable, polyethylene bailer was used to develop/purge and sample each well. The samples were collected by carefilly filling three, 40-milliliter amber vials preserved with hydrochloric acid (HCL) and inspecting them to make sure that no air bubbles were present. As a quality control measure, a trip blank prepared by the laboratory accompanied the jars scheduled for volatile analyses during the entire transportation and sampling process. The samples were hand-delivered in a chilled cooler under chain of custody protocol to SGS Laboratory in Anchorage.

# 4.8 Monitoring Well Surveying

The ground surface and Top of Casing (TOC) elevation of each of the monitoring wells were surveyed relative to each other and to a fixed reference point. The top-of-casing elevations were surveyed by BGES personnel to the nearest 0.01 foot.

#### 5.0 EVALUATION OF LABORATORY DATA

The analytical results for the Phase II ESA soil samples are listed in Table 2, and the groundwater sample results are listed in Table 3 and shown on Figure 2, and are compared to the ADEC Method 2 Cleanup Criterion listed in 18AAC 75.341 - Table B2 for soils [30 micrograms per kilogram ( $\mu$ g/Kg) for PCE and the 18AAC75.345 - Table C cleanup criterion for water [5 micrograms per liter ( $\mu$ g/L) for PCE]. Copies of the analytical reports are included in Appendbx D.

The soil samples from all three soil borings were analyzed for volatile organic compounds (VOCs) and had PCE concentrations that exceeded the ADEC cleanup criterion, with values ranging from 542 to

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79,500 µg/kg. These soil sample analytical results indicate that PCE contamination in the soil is both aerially and vertically extensive. The greatest PCE concentrations appear to be located between 18 feet bg and the water table (approximately 40 feet bg). The only other parameters that were detected in the soil samples were 1,3,5-trimethylbenzene and 1,2,4-trimethylbenzene detected in MW-2. These compounds are used as solvents and in dyes and paint thinners. The lack of detection of "daughter" compounds associated with PCE (trichloroethene, dichloroethene, vinyl chloride) indicates that biological degradation of the contaminants is not occurring at a significant rate.

The groundwater samples were analyzed for VOCs and exhibited PCE concentrations ranging from 70.7  $\mu$ g/L in MW-2 to 1,790  $\mu$ g/L in MW-3, which all exceed the ADEC cleanup criterion of 5  $\mu$ g/L. It should be noted that MW-4, which is located somewhat upgradient of the majority of the site, also contained PCE above the ADEC cleanup criterion (5  $\mu$ g/L) with a concentration of 372  $\mu$ g/L. No other VOCs were detected in the groundwater samples.

#### 6.0 QUALITY CONTROL

The soil trip blank sample had non-detectable concentrations of all analytes; therefore, cross-contamination of samples is not likely to have occurred. In addition, the soil method blank had non-detectable concentrations of all analytes. The case narrative for the soil samples indicated several matrix spike samples and laboratory check samples that did not meet quality control criteria, however, these samples were not associated with any analytes that were detected above the practical quantitation limit (PQL), and therefore, the data are not considered to have been adversely affected.

The water trip blank had non-detectable concentrations of all analytes; therefore, cross-contamination of samples is not likely to have occurred. The water method blank had non-detectable concentrations of all analytes except for estimated concentrations (values were between the PQL and the method detection limit) of 1,2,4, trichlorobenzene and 1,2,3 trichlorobenzene. However, the associated parameters were not detected in the soil samples at concentrations exceeding the PQL; therefore, the validity of the data is not considered to be adversely affected.

The case narrative for the soil samples indicated several quality control samples with a limited number of analytes that were out of quality control criteria. However, most of the associated parameters were not detected in the soil samples at concentrations exceeding the PQL; therefore, the validity of the data is not considered to be adversely affected. The continuing calibration verification sample for

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dichlorodifluoromethane was biased low and did not meet the laboratory quality control criterion. Therefore, the PQL for this parameter in associated samples should be considered an estimated value.

#### 7.0 WATER WELL SURVEY

A water well survey was conducted for a ¼-mile search radius from the subject property. The United States Geological Survey and Alaska Department of Natural Resources databases were reviewed. The Alaska Department of Environmental Conservation database does not store information about private wells, but an iaquiry to the agency revealed that there are no public water supply systems within ¼ of the subject property. Furthermore, the Municipality of Anchorage Water Well database was reviewed but no wells were found. The following water supply wells were located during our search:

Well Number	Date of Well Construction	Depth of Well (feet)
SBC1300318AACD1 007	7/11/61	49.5
SBC1300318ADAB1 006	8/2/48	57.0
SBC1300318ADAB2 006	8/1/48	20
SBC1300318ADAB3 006	1/1/52	139
SBC1300318ADBD1 001	10/1/53	227
·		

Information concerning these wells is included in Appendix E and shown on Figure 3. In addition, residents at 710 and 720 East Third Avenue, located across the alley to the north of the subject property, were questioned regarding the presence of water supply wells on their property. No wells were identified by these persons. Furthermore, we conducted a "drive-by" reconnaissance of these properties, as well as the properties identified in the table above as potentially having water supply wells. No wells were observed during this reconnaissance.

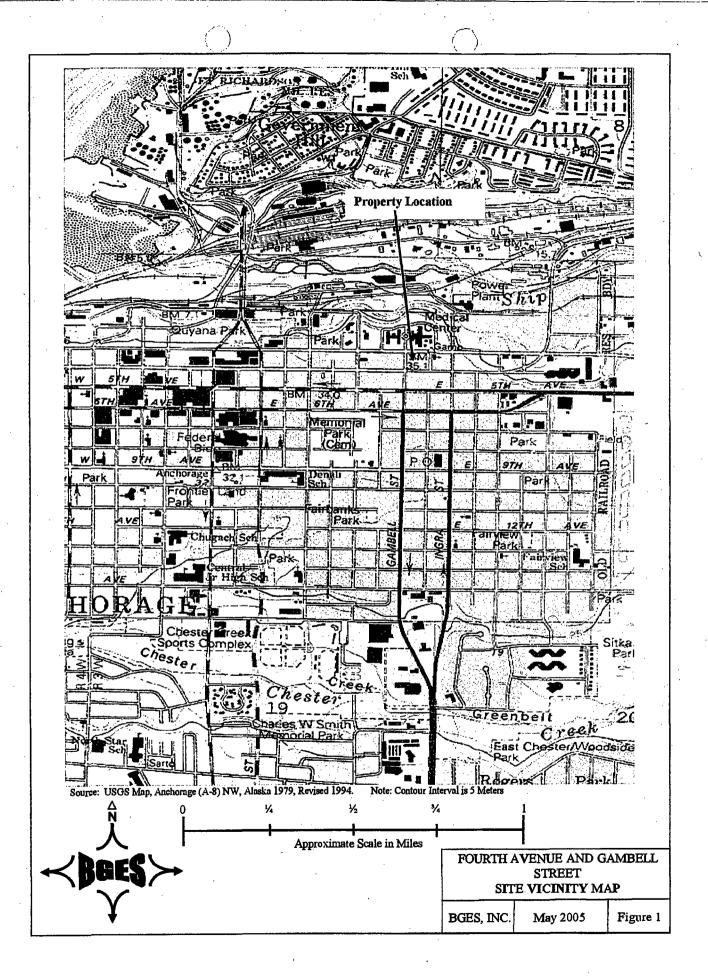
#### 8.0 DISPOSAL OF INVESTIGATIVE DERIVED WASTES

As a result of the soil boring and monitoring well drilling and sampling activities, eight full drums of soil and one drum of water (approximately ¼ full) were generated. These drums were disposed of by

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	Emerald Alaska as hazardous waste. Copies of the manifest and disposal documentation are included
	in Appendix F.
-	9.0 CONCLUSIONS AND RECOMMENDATIONS
	Three soil borings were advanced in the approximate locations shown on Figure 2, and all three were
	completed as monitoring wells. Soil samples and groundwater samples were collected and analyzed
	for VOCs. The soil and water samples exhibited PCE concentrations that are several orders of
	magnitude greater than ADEC cleanup standards. The lack of "daughter" constituents associated with
	PCE in the laboratory analyses indicates that biodegradation of the contaminant is not occurring at a
	significant rate. This may be the case because of the generally coarse grained nature of the soils which
	would allow oxygen to permeate to the subsurface, and the fact that biodegradation of PCE typically
	occurs under anaerobic conditions.
	As a result of the drilling and sampling activities, eight drums of soil cuttings and 1 drum of water
	were generated and disposed of as hazardous wastes.
	A water well survey was conducted for the area within ¼ mile of the subject property. Five water
	supply wells were located in the databases. These wells were not observed during a "drive-by"
	reconnaissauce. No other wells were identified in the area that was searched.
	It is recommended that a copy of this report be provided to the ADEC for their review.
-	10.0 EXCLUSIONS AND CONSIDERATIONS
•	This report presents facts, observations, and inferences based on conditions observed during the
	period of our project activities, and only those conditions that were evaluated as part of our scope of
	work. Our conclusions and recommendations are based on our observations and the results of om
	research, and as such, rely on the accuracy of the reports and other correspondences that were
	reviewed. In addition, changes to site conditions may have occurred since we completed our initial
	project activities. These changes may be from the actions of man or nature. Changes in regulations
	may also impact the interpretation of site conditions. BGES will not disclose our findings to any
	parties other than our client as listed above, except as directed by our client, or as required by law.
	Prepared by: Reviewed by:

Robert N. Braunstein, C.P.G. Principal Geologist

Keith O. Guyer, R.G. Principal Geologist



# TABLE 1 POURTH AVENUE AND OAMBELL STREET SOIL SAMPLES PHOTOIONIZATION DETECTOR READINGS

Soli	······	Sample Depth	PID Reading in	PID Heads pace		
Boring	Sample No.	(feet bg)	Spoon (ppm)	Reading (ppm)	PCE (µg/Kg)	Description
MW-2	N/A	0 to 2	N/A	N/A	N/A	Sand and gravel
	S-1 S-2	2 to 4	0	0,5 8.2	N/A N/A	Coarse grained sand and gravel Very fine to fine grained sand and gravel
	S-2 S-3	4 to 6	. 0	11.8	N/A	Medium to coane grained sand and gravel
	S-4	. 6 ta 8 8 to 10	0	6.1	N/A	Fine to coarse grained sand, slightly silty, and gravel
	S-5	10 to 12	Ö	16.2	N/A	Medium grained sand and gravel
	S-6	12 to 14	ŏ	11.4	N/A	Fine to coarse grained sand, some gravel
	S-7	14 to 16	· ŏ	9.6	N/A	Coarse grained sand, trace gravel
	S-8	16 to 18	.0	6.1	N/A	Fine to coarse grained sand and gravel
Lab	S-9	18 to 20	2.3	57.2	29,700	Medium to coarse grained sand and gravel
	S-10	20 to 22	C	6.0	N/A	Fine lo coarse grained sand, trace gravel
	S-I1	22 to 24	. 0	11.5	N/A	Medium grained sand, trace gravel
	S-12	24 to 26	О .	4.2	N/A	Gravel and coarse grained sand
	S-13	26 to 28	. 0	11.5	N/A	Coarse grained sand, trace gravel
Lab ·	S-14	28 to 30	0	li5	79,500	Medium to coarse grained sand, 3-inch peat layer
	S-15	30 to 32	12.7	38.4	N/A	Fine to coarse grained sand
	S-16 /	32 to 34	0.8	6.1	N/A	Fine to medium grained sand
	S-17	34 to 36	0.9	20	N/A	Fine grained sand
	<u>S-18</u>	36 to 38	. 0	40	N/A	Medium to coarse grained sand, trace clay
Lab	S-19	38 to 40	0	69.1	542	Coarse grained sand
	S-20	40 to 42	0	47.9	N/A	Medium grained sand, saturated
	S-21	42 to 44	0	49.0	N/A	Very fine grained sand, slightly silty, saturated
	S-22	44 to 46	0	65,4	N/A	Coarse grained sand, saturated and clay
MW-3	N/A	0 to 5	N/A	N/A	N/A	Very fine grained sand, very silly, some gravel
	S-1	5 to 7	N/A	1.2	N/A	Medium to coarse grained sand and gravel
	N/A	7 to 10	N/A	N/A	N/A	Sand and gravel Coarse grained sand and gravel
	, 3-2 N/A	10 to 12	N/A	4.8 N/A	N/A N/A	<u> </u>
	S-3	12 to 15	N/A N/A	7.0	N/A	Sand and gravel Fine to coarse grained sand and gravel
	3-3 N/A	15 to 17 17 to 18	N/A N/A	7.0 N/A	N/A N/A	Sand and gravel
	S-4	18 to 20	N/A	3.7	N/A	Very fine to coarse grained sand and gravel
Lab	S-5	20 to 22	N/A	10.1	3,590	Medium to coarse grained sand end gravel
بالما	S-6	22 to 24	N/A	3.8	N/A	Fine to medium grained sand and gravel
	S-7	24 to 26	N/A	6.8	N/A	Medium to coarse grained sand, some gravel
	S-8	26 to 28	N/A	16.0	N/A	Medium to coane grained sand, some gravel
	S-9	28 to 30	N/A	11,4	N/A	Fine grained sand, some gravel
	S-10	30 to 32	N/A	6.3	N/A	Medium to coarse grained sand, trace gravel
Lab	S-11	32 to 34	N/A	16.0	5,210	Fine to coarse grained sand, some gravel
	S-12	34 to 36	N/A	5,5	N/A	Very fine to medium grained sand
	S-13 `	36 to 38	N/A	11.3	N/A	Medium grained sand
	S-14	38 to 40	N/A	3.8	N/A	Medium grained sand, moist
	S-15	40 to 42	N/A	6.6	N/A	Medium grained sand, saturated
	8-16	42 to 44	N/A	· 0.0	N/A	Fine to medium grained sand, trace gravel, saturated
	S-17	· 44 to 46	N/A	0.0	N/A	Medium grained sand, saturated
Lab	S-18	46 to 48	N/A	7.1	3,190	Very fine to fine grained sand, saturated, and clay
MW-4	N/A	0 to 5	N/A	N/A	N/A	Sand and gravel
	S-1	5 to 7	N/A	0.0	N/A	Fine to coarse grained sand, some clay
	N/A	7 to 10	N/A	N/A	N/A	Sand and gravel
	S-2 N/A	10 to 12	N/A	2.8 N/A	N/A	Very fine to coarse grained sand, silty, and gravel Sand and gravel
	N/A S-3	12 to 15	N/A		N/A	Sand and gravel Coarse grained sand and gravel
	N/A	15 to 17 17 to 18	N/A N/A	0.2 N/A	· N/A N/A	Coarse grained sand and gravei Sand and gravel
Lab	S-4	17 to 18 18 to 20	N/A N/A	55.9	11,100	Coarse grained saod and gravel
Lau	S-5	20 to 22	N/A N/A	0.0	N/A	Coarse grained sand and gravel
	S-6	20 to 24	N/A N/A	16.4	N/A	Fine to coarse grained sand and gravel
	S-7	24 to 26	N/A	17.1	N/A	Fine to medium grained sand and gravel
	S-8	26 lo 28	N/A	9.3	N/A	Coarse grained sand and gravel
	S-9	28 to 30	N/A	0.0	N/A	Coarse grained sand, slightly silvy, some gravel
	S-10	30 to 32	N/A	0.0	N/A	Coarse grained sand, some gravel
	S-t1	32 to 34	N/A	1.1	N/A	Medium grained sand
	S-12	34 to 36	N/A	0.0	N/A	Very fine to coarse grained sand
Lab	S-13	36 to 38	N/A	3.7	2,130	Fine grained sand, moist
	S-14	38 to 40	N/A	0.0	N/A	Fine grained sand, moist
	S-15	40 to 42	N/A	0.0	N/A	Very fine to coarse grained sand, slightly silty, saturated
	S-16	42 to 44	N/A	0.0	N/A	Very fine grained sand, saturated
	S-17	44 to 46	N/A	0.0	N/A	Very fine grained sand, sihy, saturated
	S-18	46 to 48	N/A	0.0	N/A	Medium grained sand, saturated, and clay

# TABLE 2 FOURTH AVENUE AND GAMBELL STREET SOIL SAMPLES LABORATORY ANALYTICAL RESULTS

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Soil Sample	Sample Depth		Results	PQL		ADEC Soil Cleanup leve
No.	(feet bg)	Parameter <sup>1</sup>	(µg/Kg)	(µd/Kg)	Analytical Method	(μg/Kg)
MW-2	18-20	Tetrachloroethene	29,700	577	SW8260B	30 <sup>2</sup>
S-9		All other VOCs	ND	Varies	SW8260B	Varies
MW-2	28-30	Tetrachloroethene	79,500	1,350	SW8260B	30 <sup>2</sup>
S-14		1,3,5-Trimethylbenzene	38.0	27.0	SW8260B	NE
		1,2,4-Trimethylbenzene	32.6	27.0	SW8260B	NE
		All other VOCs	ND	Varies	SW8260B	Varies.
MW-2	38-40	Tetrachloroethene	542	16.2	SW8260B	30 <sup>2</sup>
S-19		All other VOCs	ND	Varies	SW8260B	Varies
MW-3	20-22	Tetrachloroethene	3,590	128	SW8260B	30 <sup>2</sup>
S-5	•	All other VOCs	ND	Varies	SW8260B	Varies
MW-3	32-34	Tetrachloroethene	5,210	201	SW8260B	30 <sup>2</sup>
S-11		All other VOCs	ND	Varies	SW8260B	Varies
MW-3	46-48	Tetrachloroethene	3,190	170	SW8260B	30 <sup>2</sup>
S-18	•	All other VOCs	ND	Varies	SW8260B	Varies
MW-4	18-20	Tetrachloroethene	11,100	359	SW8260B	30 <sup>2</sup>
S-4		All other VOCs	ND	Varies	SW8260B	Varies
MW-4	36-38	Tetrachloroethene	2,130	22.6	SW8260B	30 <sup>2</sup>
S-13	,	All other VOCs	ND	Varies	SW8260B	Varies

<sup>&</sup>lt;sup>1</sup> Only parameters listed have results greater than PQL

<sup>&</sup>lt;sup>2</sup> Soil cleanup criteria from Alaska Department of Environmental Conservation (ADEC) 18AAC 75.341, Table B1

Border = Concentration exceeds corresponding ADEC cleanup criterion

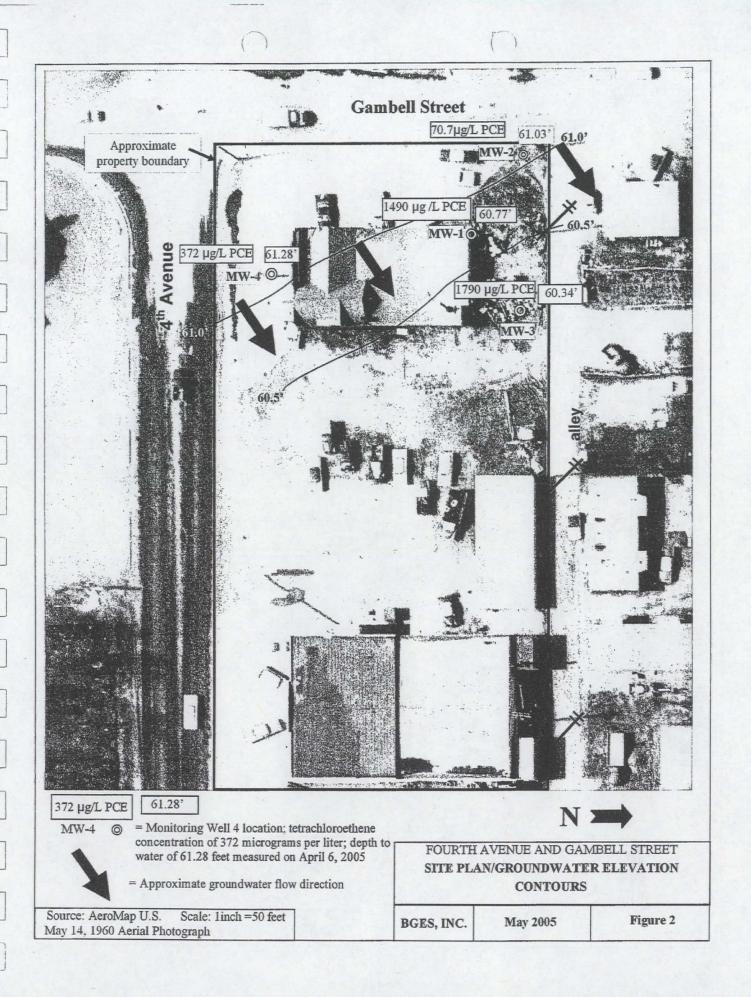
bg = below grade

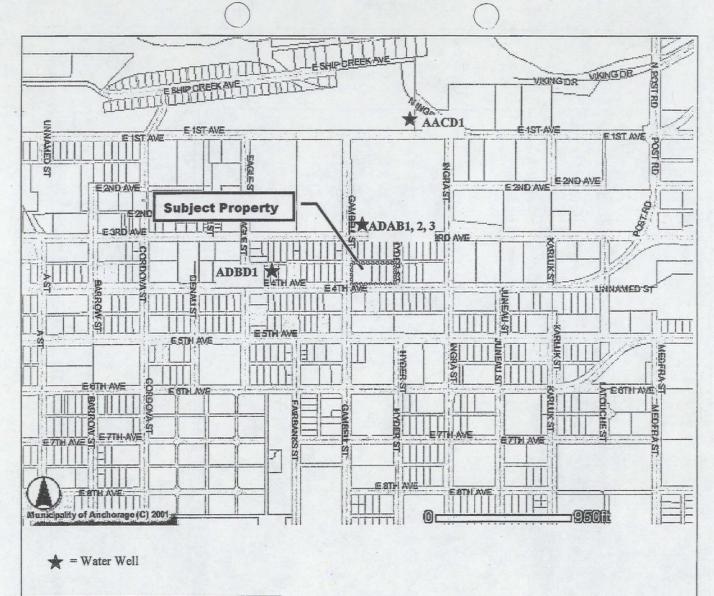
NE = Not Established

μg/Kg = Micrograms per Kilogram

PQL = Practical Quantitation Limit

ND = Non-Detectable





49.5
3 57.0
3 20
2   139
3 227

Source: U.S. Geological Survey-Water Resources Department



FOURTH AVENUE AND GAMBELL STREET
Water Well Survey

BGES, INC. May 2005 Figure 3

# TABLE 3 FOURTH AVENUE AND GAMBELL STREET GROUNDWATER SAMPLES LABORATORY ANALYTICAL RESULTS

Sample Name	Parameter <sup>1</sup>	Results (µg/L)	Analytical Method	Method Two Groundwater Cleanup Level (pg/L) <sup>2</sup>
MW-1	PCE	1490	SW8260B	5
MW-2	PCE	70.7	SW8260B	5
MW-3	PCE	1790	SW8260B	5
MW-4	PCE	372	SW8260B	5

<sup>&</sup>lt;sup>1</sup> = All other Volatile Organic Compounds were Non-Detectable

Border = Concentration exceeds corresponding ADEC cleanup criterion

μg/L = Micrograms per Liter

PCE = Tetrachloroethene

<sup>&</sup>lt;sup>2</sup> = Groundwater Cleanup levels based on 18AAC 75.345 Table C.

APPENDIX A
PHOTOGRAPHS

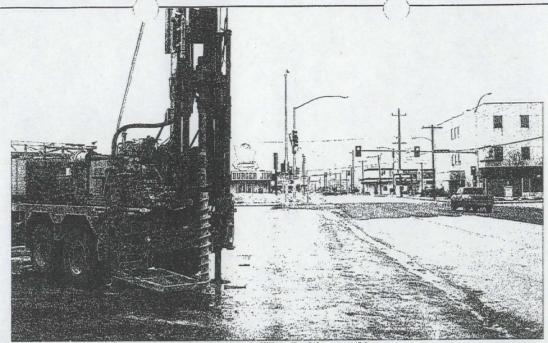


Photo 1. Advancing Boring MW-2 (looking south)

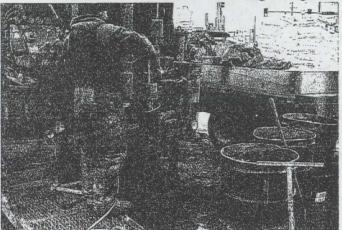


Photo 2. Installing MW-2 (looking south)



Photo 3. Advancing Boring MW-4 (looking southeast)

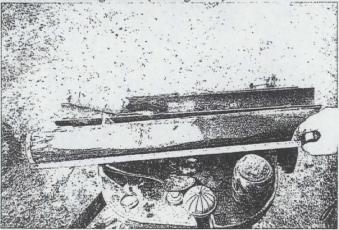


Photo 4. Sand/Clay Contact in Sample S-22 from MW-2



Photo 5. Placing Drums in Storage Area

Fourth Avenue And Gambell Street Property Photographs

BGES, INC.

May 2005

Figure A-1

# APPENDIX B SOIL BORING LOGS AND WELL CONSTRUCTION DIAGRAMS



# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-2 BORING LOCATION: NW Corner of Property

Date: March 12, 2005 Weather Conditions: Cloudy, Cool (Approximately 38 degrees Fahrenheit)

Time: 09:35 Drilling Company/Rig Type: Denali Drilling/CME 85

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

Samp No.	T TITITUTE	PID Spn/Smpl	DESCRIPTION	Blow Counts
N/A	From: 0 to: 2.0 Time: 09:40		Drilled - Sand and Gravel; brown	N/A
S-1	From: 2.0 to: 4.0 Time: 9:55	0 0.5	Sand, coarse grained and gravel, subrounded; brown; saturated at top, dry at bottom. 1.5-foot recovery	31-36-31
S-2	From: 4.0 to: 6.0 Time: 10:05	0 8.2	Saud, very fme to fine grained and gravel, subrounded; thin clay layer at 5.7'; brown to light tan; 1.7' recovery	13-32-45-47
S-3	From: 6.0 to: 8.0 Time: 10:12	0 11.8	Sand, medium to coarse grained, and gravel, subrounded to angular; brown to tan; 1.6-foot recovery	16-20-17-16
S-4	From: 8.0 to: 10.0 Time: 10:18	0 6.1	Sand, fine to coarse grained, slightly silty, and gravel, rounded to angular; iron staining at btm.; light brown to tan; 1.6-foot recovery	
S-5	From: 10.0 to: 12.0 Time: 10:26	0 16.2	Sand, medium grained, some coarse, grained and gravel, rounded to subangular; light brown to tan; moist; 1.5-foot recovery	12-12-12-12
S-6	From: 12.0 to: 14.0 Time: 10:34	0 11.4	Sand, fine to coarse grained, some gravel, angular to subrounded; light brown; charred wood in middle; 1.3-foot recovery	8-9-10-8
S-7	From:14.0 to:16.0 Time: 10:37	0 9.6	Sand, coarse grained, trace gravel, rounded; light brown; 1.5-foot recovery	6-6-10-9
S-8	From:16.0 to:18.0 Time: 10:48	0 6.1		
S-9	From: 18.0 to: 20.0 Time: 11:05	2.3 57.2	Sand, medium to coarse grained, and gravel, subrounded; charred wood/peat at 19.8 feet	11-12-12-10

Notes: Thermo Environment	al Instruments 580 EZ Photoiou	ization Detector.	
	<u> </u>		

Boring Log Form, Revised 4/04

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## FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-2 BORING LOCATION: NW Corner of Property

Date: March 12, 2005 Weather Conditions: Cloudy, Cool (Approximately 38 degrees Fahrenheit)

Time: 09:35 Drilling Company/Rig Type: Denali Drilling/CME 85

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

) }	Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
	S-10	From: 20.0 to: 22.0 Time: 11:13	0 6.0	Sand, fine to coarse grained, trace gravel, angular, light brown; moist; 1.7-foot recovery	9-15-15-5
ا ر	S-11	From: 22.0 to: 24.0 Time: 11:22	0 11.5	Sand, medium grained, trace coarse grained, trace gravel; light brown; moist; 1.8-foot recovery	8-11-13-16
]	S-12	From: 24.0 to: 26.0 Time: 11:30	0 4.2	Gravel, angular, and coarse sand; light brown; moist; 1.6' recovery	8-15-20-20
}	S-13	From: 26.0 to: 28.0 Time: 10:36	0 11.5	Sand, coarse grained, trace gravel, rounded to subrounded; brown; black streak (organics) at 27.7'; 1.6' recovery	11-13-12-11
	S-14	From: 28.0 to: 30.0 Time: 11:44	0 115	Sand, medium to coarse grained; light brown; 3-inch thick pear layer at 29.2 feet; 1.6-foot recovery	8-8-13-12
]	S-15	From: 30.0 to: 32.0 Time: 11:53	12.7	Sand, fine to coarse grained; light brown; 1.7-foot recovery	11-11-14-15
]	S-16	From: 32.0 to: 34.0 Time: 12:01	0.8	Said, fine to medium grained, trace coarse grained; light brown; 1.8-fbot recovery	7-11-10-13
	S-17	From: 34.0 to:36.0 Time: 12:21	0.9 20	Sand, fine grained; light brown; 1.6-foot recovery	9-12-12-10
<u></u>	S-18	From:36.0 to:38.0 Time: 12:37	0 40	Sand, medium to coarse grained; hight grey; moist; trace clay at bottom of spoon, 0.25-inch iron-stained lenses in bottom 11 inches; 1.8-foot recovery	6-11-15-15
- - -	S-19	From: 38.0 to: 40.0 Time: 12:50	0 69.1	Sand, coarse grained, dark grey; saturated; some layers of light brown iron staining; 1.9-foot recovery	6-12-11-10

Notes: Thermo Environmental Instruments 580 EZ Photoionization detector.

Boring Log Fonn, Revised 4/04

Page 2 of 3



Boring Log Form, Revised 4/04

# BGES, INC. SOIL BORING LOG

# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-2 BORING LOCATION: NW Corner of Property

Date: March 12, 2005 Weather Conditions: Cloudy, Cool (Approximately 38 degrees Fahrenheit)

Time: 09:35 Drilling Company/Rig Type: Denali Drilling/CME 85

Observer: BNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
S-20	From: 40.0 to: 42.0 Time: 13:03	0 47.9	Sand, medium grained; grey; saturated; 1.9-foot recovery	3-8-11-15
S-21	From: 42.0 to: 44.0 Time: 13:13	0 49.0	Sand, very fine grained, slightly silty (bottom 4 inchesno silt), grey; saturated	4-10-20-20
S-22	From: 44.0 to: 45.2 Time: 13:33	0 65.4	Sand, coarse grained; grey; saturated	4-5-7-6
S-22	From: 45.2 to: 46.0 Time: 10:36	0 65.4	Clay, dark grey	4-5-7-6
			End of boring - clay	
				·
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Notes:	Thermo Enviromnenta	l Instrument	ts 580 EZ Photoionization detector.	

Page 3 of 3



# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-3 BORING LOCATION: 89.3 feet east of Gambell Street, near Alley

Date: March 13, 2005 Weather Conditions: Rainy, Cool (Approximately 38 degrees Fahrenheit)

Time: <u>08:00</u> Drilling Company/Rig Type: <u>Denali Drilling/CME 85</u>

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
Drilled	From: 0 to: 5.0 Time: 08:24	<u>.</u>	Sand, very fme grained, very silty; dark brown; frozen at the surface; some gravel at 3 feet below grade	N/A
S-1	From: 5.0 to: 7.0 Titue: 8:32	1.2	Sand, medium to coarse grained and gravel, subrounded to angular; brown; 1.4-foot recovery	10-15-21-31
Drilled	From: 7.0 to: 10.0 Time: 8:36		Sand and gravel; brown	N/A
S-2	From: 10.0 to: 12.0 Time: 8:41	4.8	Sand, coarse grained, and gravel, subrounded to rounded, slightly silty; brown to hght grey; 1.6-foot recovery	7-11-14-16
Drilled	From: 12.0 to: 15.0 Time: 8:45		Sand and gravel	N/A
S-3	From: 15.0 to: 17.0 Time: 8:49	7.0	Sand, fine to coarse grained, and gravel, subrounded to rounded; brown; 1.4-foot recovery	8-12-14-18
Drilled	From: 17.0 to: 18.0 Time: 8:53		Sand and gravel	N/A
S-4	From: 18.0 to:20.0 Time: 9:00	3.7	Sand, very fine to coarse grained, slightly silty, and large gravel, subrounded; light brown to light grey; 1.4-foot recovery	8-16-21-17
S-5	From:20.0 to:22.0 Time: 9:06	10.1	Sand, medium to coarse grained, and gravel, angular to subrounded; brown; 1.5-foot recovery	7-14-19-22
S-6	From: 22.0 to: 24.0 Time: 9:15	3.8	Sand, fine to medium grained, and gravel, angular to subrounded; brown; 1.4-foot recovery	7-19-19-19

Notes: Thermo Environmental Instruments 580 EZ Photoionization detector.								
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Boring Log Form, Revised 4/04

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# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-3 BORING LOCATION: 89.3 feet east of Gambell Street, near Alley

Date: March 13, 2005 Weather Conditions: Rainy, Cool (Approximately 38 degrees Fahrenheit)

Tune: <u>08:00</u> Drilling Company/Rig Type: <u>Denali Drilling/CME 85</u>

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

] ]	Sample No.	DEPTH	PID ( Spn/Smpl	DESCRIPTION	Blow Counts
ا آ	S-7	From: 24.0 to: 26.0 Time: 9:23	6.8	Sand, medium to coarse grained, some gravel, subrounded to rounded; brown, 1/8-inch peat layer at 25.8°; 1.6-foot recovery	9-15-14-13
] . ]	S-8	From: 26.0 to: 28.0 Time: 9:34		Sand, medium to coarse grained (top 0.7 foot), then fme grained, some gravel, subrounded; brown; 1.6-foot recovery	10-19-13-19
] i	S-9	From: 28.0 to: 30.0 Time: 9:43	F1.4	Sand, fine grained, trace coarse sand, some gravel, subrounded; brown; 1.6-foot recovery	8-16-16-20
j	S-10	From: 30.0 to: 32.0 Time: 9:51	6.3	Sand, medium to coarse grained, trace gravel, subrounded; moist; brown; 1.7-foot recovery	9-13-16-15
].	S-11	From: 32.0 to: 34.0 Time: 10:12	16.0	Sand, fine to coarse grained, some gravel, subrounded to rounded; dry; light brown; 1.6-foot recovery	6-13-15-12
	S-12	From: 34.0 to: 36.0 Time: 10:21	5.5	Sand, very fine to medium grained, some coarse grained; dry; hght brown; 1.6-foot recovery	5-11-11-15
	S-13	From: 36.0 to: 38.0 Time: 10:35	11.3	Sand, medium grained; dry; hght brown; 1.5-foot recovery	5-11-13-15
].	S-14	From: 38.0 to: 40.0 Time: 10:45	3.8	Sand, medium grained; moist; light brown to light grey; 2.0-foot recovery	5-11-14-16
7	S-15	From: 40.0 to: 42.0 Time: 10:54	5.6	Sand, medium grained; saturated; light grey; 1.6-foot recovery	9-10-10-12
ٽـ آ	S-16	From: 42.0 to: 44.0 Time: 11:05	0.0	Sand, fine to medium grained, trace gravel; saturated; grey; brown clay in bottom of spoon; 1.8-foot recovery	6-11-14-12
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Notes: Thermo Environmental Instruments 580 EZ Photoionization detector.

Boring Log Form, Revised 4/04

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# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-3 BORING LOCATION: 89.3 feet east of Gambell Street, near Alley

Date: March 13, 2005 Weather Conditions: Rainy, Covi (Approximately 38 degrees Fahrenheit)

Tune: <u>08:00</u> Drilling Company/Rig Type: <u>Denali Drilling/CME 85</u>

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
S-17	From: 44.0 to: 46.0 Time: 11:17	0.0	Sand, medium to coarse grained; saturated; grey; 1.9-foot recovery	6-13-17-20
S-18	From: 46.0 to: 47.3; , Time: 11:36	7.1	Sand, fine grained; saturated; grey;	3-3-8-22
S-18	From: 47.3 to: 47.6 Time: 11:36	7.1	Clay; grey	3-3-8-22
S-18	From: 47.6 to: 48.0 Time: 11:36	7.1	Sand, very fine grained, silty, saturated, grey	3-3-8-22
		:	End of Boring – 0.3-foot clay layer at 47.3 feet	
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Notes:	Thermo Environmenta	l Instrument	ts 580 EZ Photoionization detector.	
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Boring Log Form, Revised 4/04

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# FOURTH AVENUE AND GAMBELL STREET

The state of the s	•	48.
BORING NUMBER: MW-4 BORING LOCATION:	. 62.0 feet east of Cambell Street, near	r 4 <sup>th</sup> Ave.
BURING HUMBER: MW-4 DUKING LUCATION:	02.0 feet cast of Gameen Street, mean	<u> </u>

Date: March 13, 2005 Weather Conditions: Rainy, Cooi (Approximately 36 degrees Fahrenheit)

Time: 13:15 Drilling Company/Rig Type: Denali Drilling/CME 85

PID.

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

	Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
П	Drilled	From: 0 to: 5.0 Time: 13:23	_	Sand and gravel, angular to subrounded; brown	N/A
	S-1	From: 5.0 to: 7.0 Time: 13:40	- 0.0	Sand, fine to coarse grained (clay at top 0.3 foot), and gravel, subrounded; 2.0-foot recovery	10-13-18-16
	Drilled	From: 7.0 to: 10.0 Time: 13:45		Sand and gravel; brown	N/A
	S-2	From: 10.0 to: 12.0 Time: 13:47	2.8	Sand, very fine to coarse grained, silty, and few large pieces of gravel, subrounded; brown; black organic layer at 11.0-11.2 feet; 1.6-foot recovery	11-14-16-14
	Drilled	From: 12.0 to: 15.0 Time: 13:50		Sand and gravel; brown	N/A
	S-3	From: 15.0 to: 17.0 Time: 13:52	0.2	Sand, coarse grained, and gravel, rounded to subrounded, brown, 1.7-foot recovery	6-11-13-15
	Drilled	From: 17.0 to: 18.0 Time: 13:54	_	Sand and gravel; brown	N/A
	S-4	From: 18.0 to:20.0 Time: 13:59	55.9	Sand, coarse grained, and gravel, subrounded; brown; black organics at 19.5-19.7 feet; 1.5-foot recovery	6-5-11-15
	S-5	From: 20.0 to:22.0 Time: 14:05	0.0	Sand, coarse grained, and gravel, subrounded, light brown, 1.7-foot recovery	10-13-19-23
	S-6	From: 22.0 to: 24.0 Time: 14:12	16.4	Sand, fine to coarse grained, and gravel, subrounded; light brown; 1.6-foot recovery	9-15-16-18

Notes: Thermo Environmental Instruments 580 EZ Photoionization detector.

Boring Log Form, Revised 4/04

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# FOURTH AVENUE AND GAMBELL STREET

BORING NUMBER: MW-4 BORING LOCATION: 62.0 feet east of Gambell Street, near 4th Ave.

Date: March 13, 2005 Weather Conditions: Rainy, Cool (Approximately 38 degrees Fahrenheit)

Time: 13:15 Drilling Company/Rig Type: Denali Drilling/CME 85

Observer: RNB/KOG Drilling/Sampling Method: Hollow-Stem Auger/Split-Spoon Sampler

Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
S-7	From: 24.0 to: 26.0 Time: 14:17	17.1	Sand, fine to medium grained, and gravel, subrounded; brown; 0.1-foot black organic layer at 25.8 feet	7-11-10-12
S-8	From: 26.0 to: 28.0 Time: 14:25		Sand, coarse grained, and gravel, subrounded; brown to hight brown; black peat layer at 27.1 feet;	7-12-16-17
<b>S-</b> 9	From: 28.0 to: 30.0 Time: 14:37	0.0	Sand, coarse grained, slightly silty, some gravel, angular; light brown; 1.4-foot recovery	10-12-17-18
S-10	From: 30.0 to: 32.0 Time: 14:44	0.0	Sand, coarse grained, some gravel, subrounded; light brown; (31.7 to 32 feet - Sand, fine grained; light brown) 1.4-foot recovery	11-15-11-12
S-11	From: 32.0 to: 34.0 Time: 14:53	1.1	Sand, medium grained; light brown; 1.4-foot recovery	8-8-10-15
S-12	From: 34.0 to: 36.0 Time: 15:00	0.0	Sand, very fine to coarse grained, light brown; 1.5-foot recovery	10-13-15-16
S-13	From: 36.0 to: 38.0 Time: 15:10	3.7	Sand, fine grained; moist at bottom; brown; 1.7-foot recovery	7-11-13-14
S-14	From: 38.0 to: 40.0 Time: 15:19	0.0	Sand, fine grained; moist; dark grey; 1.8-foot recovery	8-9-10-11
S-15	From: 40.0 to: 41.0 Time: 15:27	0.0	Sand, fine grained; saturated; grey; 2.0-foot recovery	4-9-11-16
S-15	From: 41.0 to: 41.4 Time: 15:27	0.0	Sand, very fme grained, slightly slity; saturated; grey; 2.0-foot recovery	4-9-11-16

Notes: Thermo Environ	<u>nmental Instruments 580 I</u>	EZ Photoionization detector	r		
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Boring Log Form, Revised 4/04

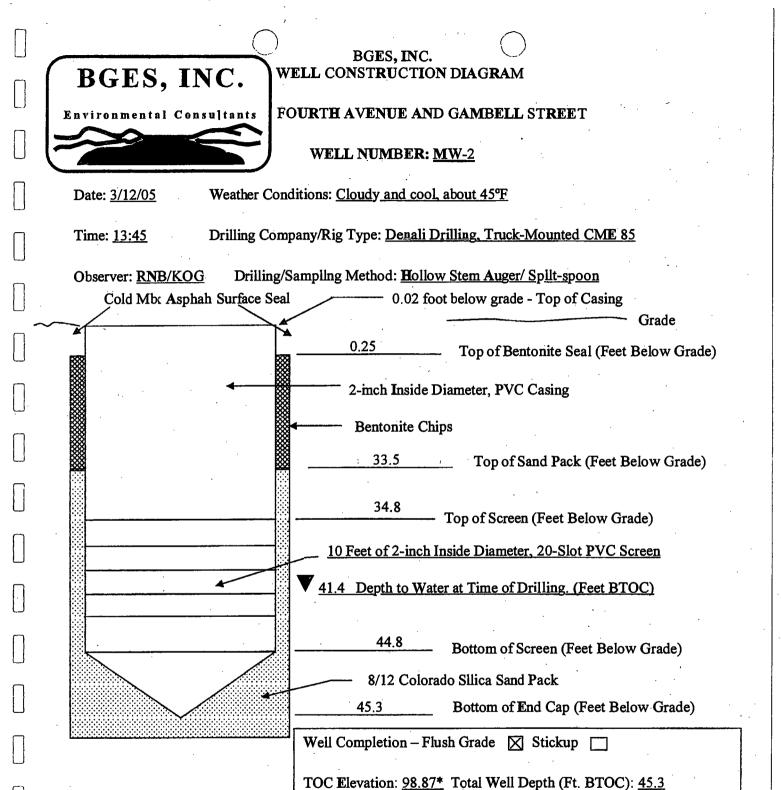
Page 2 of 3



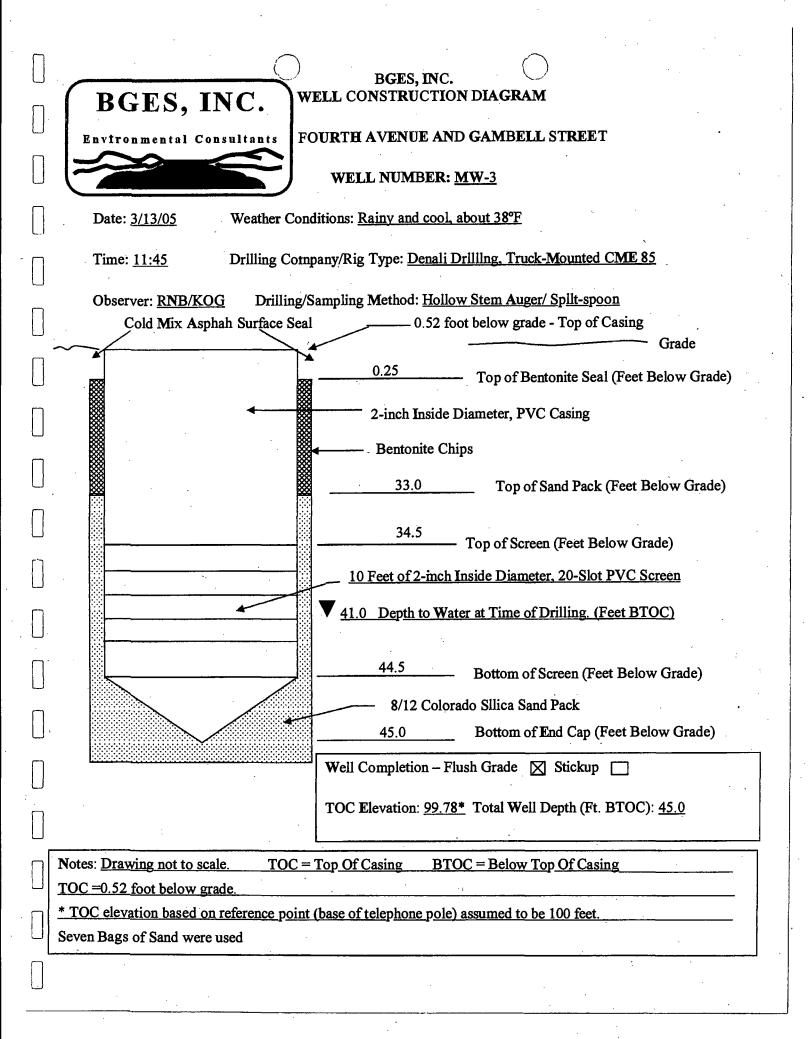
ز_	=	<b>&gt;&gt;</b>	FO	URTH AVENUE AND GAMBELL STREET	
	I	ORING NUMBER:	MW-4 BOI	RING LOCATION: 62.0 feet east of Gambell Street, near 4	th Ave.
7	<b>I</b>	Date: March 13, 2005	Weather Con	nditions: Rainy, Cool (Approximately 38 degrees Fahrenheit)	
_ 7	T	ime: 13:15 Drilling	Company/R	ig Type: <u>Denali Drilling/C<b>ME</b> 85</u>	
لـ ٦		Observer: <u>RNB/KOG</u>	Drilling/Sa	impling Method: Hollow-Stem Auger/Split-Spoon Sampler	
ر ٦	Sample No.	DEPTH	PID Spn/Smpl	DESCRIPTION	Blow Counts
ل ٦	<b>S-</b> 15	From: 41.4 to: 42.0 Time: 15:27	0.0	Sand, medium to coarse grained; saturated; grey; 2.0-foot recovery	4-9-11-16
ل ٦	S-16	From: 42.0 to: 43.2 Time: 15:40	0.0	Sand, coarse grained; saturated; grey	4-7-13-21
_ _	S-16	From: 43.2 to: 44.0 Time: 15:40	0.0	Sand, very fme gramed; saturated; grey; very thin brown lens at 43.6 feet	4-7-13-21
ل	Š-17	From: 44.0 to: 46.0 Time: 15:52	0.0	Sand, very fine grained, silty; saturated; dark grey; 2.0-foot recovery	7-12-17-26
	S-18	From: 46.0 to: 46.9 Time: 16:08	0.0	Sand, medium grained; saturated; brown	3-2-4-9
	S-18	From: 46.9 to: 48.0 Time: 16:08	0.0	Clay; grey	3-2-4-9
				End of Boring - clay layer at 46.9 feet	
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]	Notes:	Thermo Environmenta	l Instrument	ts 580 EZ Photoionization detector.	
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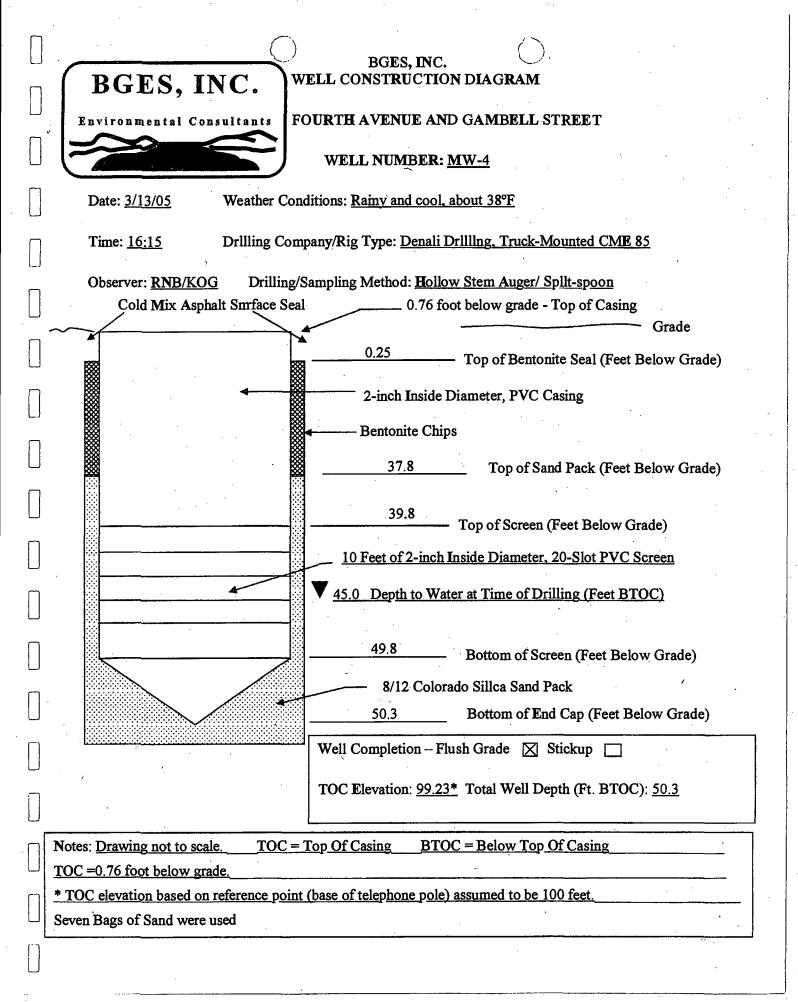
Boring Log Form, Revised 4/04

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Notes: <u>Drawing not to scale.</u>	$\underline{TOC = Top Of Casing}$	BTOC = Below Top Of Casing	····
TOC =0.02 foot below grade.			··
* TOC elevation based on refer	ence point (base of telephon	e pole) assumed to be 100 feet.	<u> </u>
Seven Bags of Sand were used	•		





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			APPENDIX C	
		WAIER	MONITORING LOGS	
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## BGES, INC. WATER MONITORING LOG FOURTH AVENUE AND GAMBELL STREET

# Well Number MW-1

Time Arrived On Site: <u>13:20</u> Date of Depth to Water Measurement: <u>April 6, 2005</u>	Weather Conditions: Partly <u>Sunny. Mild 45°F</u> Time of Depth to Water Measurement: <u>13:55</u>			
Top of Casing Elevation: Depth to Water (feet below top of casing): Water Elevation:		99.67 38.90 60.77	Type of Sampling Equipment: Disposable Polyethylene Bailer Horiba U-22	
Total Depth of Well (feet below top of casing): Depth to Water (feet below top of casing): Water Column (feet): Volume of well (gallons)		46 38.9 6.1	=0.0638 X Water Column (For 1 1/4-inch well) =0.1632 X Water Column (For 2-inch well)	
Volume of well (gallons)			=0.6528 X Water Column (For 4-inch well) =1.4688 X Water Column (For 6-inch well)	
Time Purging Began:	<u>17:02</u>		,	
Time of Sampling: Volume purged:	17:57 3 gallons			
pH Conductivity - milli siemens per centimeter (ms/cm) Turbidity - Nephelometric Turbidity Units (NTUs) Dissolved Oxygen - grams per liter (g/l) Temperature - degrees Celsius (°C) Salinity - percent (%) TDS (g/l) Oxidation Reduction Potential (ORP) - millivolts (mv)	5.55 0.006 180 13.29 VOLUMI 9.31 ONE 0.00 0.004 277	pH Conductivity (ms/ Turbidity (NTUs) Dissolved Oxyger Temperature (°C) Salinity (%) TDS (g/0 ORP (mv)	74 n (g/l) 10.88 VOLUME	
pH Conductivity (ms/cm) Turbidity (NTUs) Dissolved Oxygen (g/l) Temperature (•C) Salinity (%) TDS (g/l) ORP (mv)	6.29 0.662 150 13.22 VOLUMI 8.4 TWO 0.423 286	pH Conductivity (ms/ Turbidity (NTUs) Dissolved Oxyger Temperature (•C) Salinity (%) TDS (g/l) ORP (mv)	n (g/l)VOLUME	
pH Conductivity (ms/cm) Turbidity (NTUs) Dissolved Oxygen (g/i) Temperature (°C) Salinity (%) TDS (g/l) ORP (mv)	6.40 0.642 120 12.13 VOLUMI 8.01 THREE 0 0.413 291	pH Conductivity (ms/ Turbidity (NTUs) E Dissolved Oxyger Temperature (•C) Salinity (%) TDS (g/l) ORP (mv)	n (g/l) VOLUME	

## BGES, INC. WATER MONITORING LOG FOURTH AVENUE AND GAMBELL STREET

## Well Number MW-2

Time Arrived On Site: <u>13:20</u> Date of Depth to Water Measurement: <u>April 6, 2005</u>			Veather Conditions: Partly <u>Sunny. Mild 45°F</u> ime of Depth to Water Measurement: <u>:14:10</u>
Top of Casing Elevation: Depth to Water (feet below top of casing): Water Elevation:	·	98.87 37.84 61.03	Type of Sampling Equipment: Disposable Polyethylene Bailer Horiba U-22
Total Depth of Well (feet below top of casing): Depth to Water (feet below top of casing): Water Column (feet):		45.3 37.84 7.46	=0.0638 X Water Column (For 1 1/4-inch well)
Volume of well (gallons)	. ,	1.22	=0.1632 X Water Column (For 2-inch well) =0.6528 X Water Column (For 4-inch well) =1.4688 X Water Column (For 6-inch well)
Time Purging Began:	<u>17:02</u>		-1.4000 X Tracor Coldinii (i or C-iiidi train
Time of Sampling: Volume purged:	17:57 5 galions		
pH Conductivity - milli siemens per centimeter (ms/cm) Turbidity - Nephelometric Turbidity Units (NTUs) Dissolved Oxygen - grams per liter (g/l) Temperature - degrees Celsius (°C) Salinity - percent (%) TDS (g/l) Oxidation Reduction Potential (ORP) - millivolts (mv)	6.41 0.682 160 12.19 VOLUM 8.47 ONE 0.0 0.438	pH Conductivity (m: Turbidity (NTUs IE Dissolved Oxyg Temperature (•0 Salinity (%) TDS (g/l) ORP (mv)	en (g/l) VOLUME
pH Conductivity (ms/cm) TurbIdity (NTUs) Dissolved Oxygen (g/l) Temperature (•C) Salinity (%) TDS (g/i) ORP (mv)	6.42 0.005 780 12.30 VOLUM 8.14 TWO 0.003 278	pH Conductivity (m: Turbidity (NTUs Dissolved Oxyg Temperature (•0 Salinity (%) TDS (g/l) ORP (mv)	en (g/l)VOLUME
pH Conductivity (ms/cm) Turbidity (NTUs) Dissolved Oxygen (g/l) Temperature (•C) Salinity (%) TDS (g/l) ORP (mv)		pH Conductivity (m: Turbidity (NTUs E Dissolved Oxyg E Temperature (*0 Salinity (%) TDS (g/l) ORP (mv)	en (g/l) VOLUME

# BGES, INC. WATER MONITORING LOG FOURTH AVENUE AND GAMBELL STREET

## Well Number MW-3

Time Arrived On Site: 13:20					Partly Sunny, Mild 45°F
Date of Depth to Water Measurement: April 6, 2005			Tim	ne of Depth to Wate	er Measurement: 14:00
Top of Casing Elevation:			99.78	Type of Sampling	Equipment:
Depth to Water (feet below top of casing):			39.44	Disposable Polye	thylene Bailer
Water Elevation:			60.34	Horiba U-22	
Total Depth of Well (feet below top of casing):			45.0		
Depth to Water (feet below top of casing):			39.44		•
Water Column (feet):			5.56		
Volume of well (gallons)			0.91		Column (For 1 1/4-inch well) Column (For 2-inch well)
Volume of Weil (Sanons)					Column (For 4-inch well)
			·	=1.4688 X Water	Column (For 6-Inch well)
Time Purging Began:	17:45				
Time of Sampling:	18:39				,
Volume purged:	5 gallons			•	
pH	6.55		pH .		
Conductivity - milli siemens per centimeter (ms/cm)	0.554		Conductivity (ms/		
Turbidity - Nephelometric Turbidity Units (NTUs)	480		Turbidity (NTUs)		<del></del>
Dissolved Oxygen - grams per liter (g/l)		ONE	Dissolved Oxyger		VOLUME FOUR
Temperature - degrees Celsius (•C)	7.4	UNE	Temperature (•C) Salinity (%)	· · · · · · · · · · · · · · · · · · ·	FOOK
Salinity - percent (%) TDS (g/l)	0.354		TDS (g/l)		<del></del>
Oxidation Reduction Potential (ORP) - millivolts (mv)	283		ORP (mv)		
•	4		рH		
pH Conductivity (ms/cm)			Conductivity (ms/	(cm)	<del></del>
Turbidity (NTUs)	<del></del>		Turbidity (NTUs)		-
Dissolved Oxygen (g/l)	,	VOLUME	Dissolved Oxyger		VOLUME
Temperature (•C)		TWO	Temperature (•C)		FIVE
Salinity (%)			Salinity (%)		
TDS (g/l)			TDS (g/l)		<u>.                                    </u>
ORP (m\v)			ORP (mv)		
pH			рН		
Conductivity (ms/cm)			Conductivity (ms/		
Turbidity (NTUs)			Turbidity (NTUs)		<del></del> <u>.</u>
Dissolved Oxygen (g/l)	\		Dissolved Oxyger		VOLUME
Temperature (•C)		THREE	Temperature (•C)	·	SIX
Salinity (%)			Salinity (%)	·	· ·
TDS (g/l)			TDS (g/l)	<del></del>	<del></del> .
ORP (mv)			ORP (mv)		

#### BGES, INC. WATER MONITORING LOG FOURTH AVENUE AND GAMBELL STREET

Time Arrived On Site: 13:20  Date of Depth to Water Measurement: April 6, 2005					Partly Sunny, Mild 45°F ter Measurement: 15:42
Top of Casing Elevation:			99.23 37.95	Type of Samplin Disposable Poly	
Depth to Water (feet below top of casing): Water Elevation:			61.28	Horiba U-22	etityietie bailet
Total Depth of Well (feet below top of casing):			50.3		
Depth to Water (feet below top of casing): Water Column (feet):			37.95 12.35		
Volume of well (gallons)			2.02	=0.1632 X Wate =0.6528 X Wate	er Column (For 1 1/4-inch well er Column (For 2-inch well) er Column (For 4-inch well)
Time Purging Began:	18:30			=1.4688 X Wate	er Column (For 6-inch well)
Time of Sampling: Volume purged:	19:15 5 gallons				
рН	6.44		рН		_
Conductivity - milli siemens per centimeter (ms/cm) Turbidity - Nephelometric Turbidity Units (NTUs)	0.004 560		Conductivity (ms Turbidity (NTUs)		
Dissolved Oxygen - grams per liter (g/l)	11.58 7.87	VOLUME			VOLUME FOUR
Temperature - degrees Celsius (°C) Salinity - percent (%)	0	UNE	Temperature (°C Salinity (%)	'	FOOR
TDS (g/l) Oxidation Reduction Potential (ORP) - millivolts (mv)	0.003		TDS (g/l) ORP (mv)		
рН			pH		
Conductivity (ms/cm)			Conductivity (ms		
Turbidity (NTUs) Dissolved Oxygen (g/l)		VOLUME	Turbidity (NTUs) Dissolved Oxyge		VOLUME
Temperature (•C)		TWO	Temperature (°C		FIVE
Salinity (%)			Salinity (%)		
TDS (g/l) ORP (mv)			TDS (g/l) ORP (mv)		
рН			рН		
Conductivity (ms/cm) Turbidity (NTUs)			Conductivity (ms Turbidity (NTUs)		
Dissolved Oxygen (g/l)		VOLUME	Dissolved Oxyge	n (g/l)	VOLUME
Temperature (°C)		THREE	Temperature (•C		SIX
Salinity (%)			Salinity (%)		
TDS (g/l) ORP (mv)	-		TDS (g/l) ORP (mv)		

APPENDIX D

LABORATORY ANALYTICAL DATA

#### SGS Environmental Services Inc. Alaska Division Level 2 Laboratory Data Report

Project: 4th & Gambell

Client: BGES Inc.

SGS Work Order: 1051337

Released by: (Signature <del>) _</del>	<u> </u>		<u> </u>		1
(Printed Name)_	5har	ne Posk			
(Title)_	Arst Te	ch Dir	'FM		
(Date)	3-2	405	<u></u>		
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Contents:		·			
Case Narrative Chain of Custody/Sample Rec Form Final Report Page Quality Control Summary Forms					
Note:					
Unless otherwise noted, all quality assurance/c authority, the SGS Quality Assurance Program	quality control criteria i n Plan, and the Nationa	s in compliance with the Environmental Accre	e standards set forth ditation Conference,	by the proper regul	latory
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This report contains a total number of	pages.				•
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SGS Environmental Services Inc.

#### **Case Narrative**

**Customer: BGESINC** 

BGES Inc.

Project:

1051337

4th & Gambell

#### 614326 MS

8260 - MS result for 4-methyl-2-pentanone is biased high and does not meet laboratory QC criteria. This analyte is not detected above the PQL in the original sample.

#### 614327 MSD

8260 - MSD results for 4-methyl-2-pentanone and 2-hexanone are biased high and do not meet laboratory QC criteria. These analytes are not detected above the PQL in the original sample.

#### 614352 CCV

8260 - CCV results for several analytes are biased high and do not meet laboratory QC criteria. These analytes are not detected above the PQL In any of the associated samples.

#### 614798 CCV

6260 - CCV results for several analytes are biased high and do not meet laboratory QC criteria. These analytes are not detected above the PQL in any of the associated samples.

#### 615035 CCV

8260 - CCV recoveries for several analytes are biased high and do not meet laboratory QC goals. These analytes were not detected in the associated samples.

#### 614351 IB

8260 - IB results for dibromofluoromethane(surr), 1,2-dichloroethane-D4(surr), and toluene-D8(surr) are biased high and do not meet laboratory QC criteria. There are no target analytes detected above the PQL associated with these surrogates.

#### **CHAIN OF CUSTODY RECORD CT&E Environmental Services Inc**

**Laboratory Division** 



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SGS		1051337
Van No MA	SAMPLE RECEIPT FORM	sgs wo#:
	Are samples RUSH, priority, or w/n 72 hrs. of hold time? if yes have you done e-mail notification?  Are samples within 24 hrs. of hold time or due date? If yes, have you spoken with Supervisor?	Pue Date: 3-28-55  Received Date: 3-14-05  Received Time: 1(34)  Is date/time conversion necessary? \( \)
	Atchiving pottles- if req., are they properly marked? Are there any problems? PM Notified? Were samples preserved correctly and pH verified?	# of hours to AK Local Time:  Thermometer ID: 50  Cooler ID Temo Blank Cooler Tem
	If this is for PWS, provide PWSID.  Will courier charges apply?  Method of payment?	*Tomperature recidings include then remeter correction to
	Data package required? (Level: 1 / 2 / 3 / 4)  Notes:  Is this a DoD project? (USAGE, Navy, AFCEE)	Delivery method (circle all that apply): Client Alert Courier / UPS / FedEx / USPS / AA Goldstreak / NAC / ERA / PenAir / Carlil Lynden / SGS / Other:
This section Yes No.	n must be filled out for DoD projects (USAGE, Navy, ARCEE).	Airbill #_ Additional Sample Remuks: (\(\si\) if applicable)  Extra Sample Volume?
	Exceptions: vSamples/Analyses Affected:	Limited Sample Volume?  Field preserved for volatiles?  Field-filtered for dissolved?
	Rad Screen performed?	Lab-filtered for dissolved?  Ref Lab required?  Foreign Soil?
	Result Was there an arbill? (Nate # labore in the right hand column) Was cooler sealed with custody seals? #/ where	This section must be filled if problems are found. Yes No. Was client notified of problems?
	Were seal(s) intact upon arrival?  Was there a COC with cooler?  Was the GOC filled out properly?  Did the COC indicate COE / AFCEE / Navy project?	Individual contacted: Via! Prione J. Fay / Email **(Circle one) Date/Time:
	Did the COC and samples correspond?  Were all sample packed to prevent breakage?  Packing material:	Reason for sontact:
	Were all samples unbroken and clearly labeled?  Were all samples scaled in separate plastic hags?  Were all VOCs free of headspace and/or MeOH preserved?  Were correct container/sample sizes submitted?	Change Order Required?
4: 4 3.45	is sample condition good?  Was copy of CoC, SRF, and custody seals given to PM to fax?	SGS Contact:
Notes:	also receive) 24 too TW /sepon + MeOH	semples der disposal
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Completed by:

Date: 3-14-05

Form # F004r14: 05/17/04

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#### Laboratory Analysis Report

200 W. Potter Drive Anchorage, AK 99518-1605 Tel: (907) 562-2343 Fax: (907) 561-5301 Web: http://www.us.sgs.com

Keith Guyer BGES Inc. P.O. Box 110126 Anchorage, AK 99511

Work Order:

1051337

4th & Gambell

BGES Inc.

Report Date:

Client:

March 21, 2005

Released by:

Shane Poston Digitally signed by Shans Poston DN: CN = Shane Poston, C = US, OU = SGS Anchorace, AK Date: 2005.03.22 13:56:35-05'00'

Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Control Manual that outlines this program is available at your request. The laboratory ADEC certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS Quality Assurance Program Plan and the National Environmental Laboratory Accreditation Conference.

If you have any questions regarding this report or if we can be of any other assistance, please call your SGS Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

Practical Quantitation Limit (reporting limit). POL

U Indicates the analyte was analyzed for but not detected.

Indicates an estimated value that falls below PQL, but is greater than the MDL. F

The quantitation is an estimation.

Indicates the analyte is found in a blank associated with the sample. В

The analyte has exceeded allowable regulatory or control limits.

GT Greater Than

D The analyte concentration is the result of a dilution.

LT Less Than

Surrogate out of control limits.

QC parameter out of acceptance range. Q

M A matrix effect was present.

The analyte was positively identified, but the quantitation is a low estimation. JL

The analyte result is high outside of calibrated range.

Note: Soil samples are reported on a dry weight basis unless otherwise specified.

200 W. Potter Dr., Anchorage AK. 99518-1605 t (907) 562-2343 f (907) 561-5301 www.us.sgs.com

SGS Refi# Client Name Project Name/# Client Sample ID Matrix 1051337001 BGES Inc. 4th & Gambell MW-2 S-9 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52

Collected Date/Time Received Date/Time 03/12/2005 11:05 03/14/2005 11:34

Technical Director

Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Dale	Analysis Date	Init
Volatile Gas Chromatogr	aphy/Mass Si	pectroscopy							
Dichlorodifluoromethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TIE
Chloromethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TIE
Vinyl chloride	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TIE
Bromomethane	92.4 U	92.4	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Chloroethane	92.4 U	92.4	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Trichlorofluoromethane	23.1 U	23.1	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	TJE
1,1-Dichloroethene	23.1 U	23.1	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	TJE
Acetone	231 U	231	ug/Kg	SW8260B	. <b>A</b>		03/12/05	03/15/05	TJE
Carbon disulfide	92.4 U	/ 92.4	ug/Kg	SW8260B	A	•	03/12/05	03/15/05	TJE
Methylene chloride	92.4 U	92.4	ug/Kg	SW8260B	Α		03/12/05	. 03/15/05	TJE
trans-1,2-Dichloroethene	· 23.1 U	23.1	ug/Kg	SW8260B	· A		03/12/05	03/15/05	TJE
2-Butanone (MEK)	231 U	231	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
2,2-Dichloropropane	23.1 U	23.1	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	TJE
cis-1,2-Dichloroethene	23.1 U	23.1	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJE
1,1,1-Trichloroethane	23.1 U	23.1	ug/Kg	SW8260B	. <b>A</b>		03/12/05	03/15/05	TJE
1,1-Dichloroethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Bromochloromethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Chloroform	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Carbon tetrachloride	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Benzene	12.0 U	12.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
1,1-Dichloropropene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
1,2-Dichloroethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Trichloroethene	23.1 U	23.1	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJE
1,2-Dichloropropane	23.1 U	23.Ì	ug/Kg	SW8260B	$\mathbf{A}^{\cdot}$		03/12/05	03/15/05	TJE
Dibromomethane	23.1 U	23.1	ug/Kg	SW8260B	Α ·			03/15/05	TJE
Bromodichioromethane	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
2-Chloroethyl Vinyl Ether	92.4 U	92,4	ug/Kg	SW8260B	Α			03/15/05	TJE
1,1,2-Trichloroethane	23.1 U	23.1	ug/Kg	SW8260B	A			03/15/05	TJE
cis-1,3-Dichloropropene	23.1 U	23.1	ug/Kg	SW8260B	A	•		03/15/05	TJE
4-Methyl-2-pentanone (MIBK)	231 U	231	ug/Kg	SW8260B	A			03/15/05	TJE
Toluene	46.2 U	46.2	ug/Kg	SW8260B	Α		03/12/05		TJE
trans-1,3-Diohloropropene	23.1 U	23.1	ug/Kg	SW8260B	. A			03/15/05	TJE

SGS Refi# Client Name Project Name/# Client Sample ID

Matrix

1051337001 BGES Inc. 4th & Gambell MW-2 S-9 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time
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03/21/2005 15:52 03/12/2005 11:05 03/14/2005 11:34

Received Date/Time Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatoar	anhu/Mass Sna	actroscopy						·	
•									
Tetrachloroethene	29700	577	ug/Kg	SW8260B	A			03/17/05	T.
1,3-Dichloropropane	23.1 U	23.1	ug/Kg	SW8260B	, A		,	03/15/05	T
2-Hexanone	231 Ŭ -	231	ug/Kg	SW8260B	Α			03/15/05	Т
Dibromochloromethane	23.1 Ü	23.1	ug/Kg	SW8260B	A			03/15/05	Γ
1,1,1,2-Tetrachloroethane	23.1 Ŭ	23.1	ug/Kg	SW8260B	Α			03/15/05	. Т
1,2-Dibromoethane	23.1 Ŭ	23.1	ug/Kg	SW8260B	A			03/15/05	T
Chlorobenzene	23.1 Ŭ	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
Ethylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
P & M -Xylene	46.2 U	46.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	. 1
o-Xylene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Ţ
Styrene	23.1 U	23.1	ug/Kg	SW8260B	· A		03/12/05	03/15/05	Τ
Bromoform	23.1 U	23.1	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	T
Isopropylbenzene (Cumene)	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
Bromobenzene .	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1,2,3-Trichloropropane	46.2 U	46.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	1
n-Propylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	1
1,1,2,2-Tetrachloroethane	46.2 U	46.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
2-Chlorotoluene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
4-Chlorotoluene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
1,3,5-Trimethylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
tert-Butylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	1
1,2,4-Trimethylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
sec-Butylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1.3-Dichlorobenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	·T
4-Isopropyltoluene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1,4-Dichlorobenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1,2-Dichlorobenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
n-Butylbenzene	23.1 U	23.1	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,2-Dibromo-3-chloropropane	92.4 U	92.4	ug/Kg	SW8260B	A		03/12/05	03/15/05	. Т
1.2.4-Trichlorobenzene	46.2 U	46.2	ug/Kg	SW8260B	Α			03/15/05	Τ
Hexachlorobutadiene	46.2 U	46.2	ug/Kg	SW8260B	A			03/15/05	Т
Naphthalene	46.2 U	46.2	ug/Kg	SW8260B	Α			03/15/05	T
Methyl-t-butyl ether	37.0 U	37.0	ug/Kg	SW8260B	A			03/15/05	T
1,2,3-Trichlorobenzene	46.2 U	46.2	ug/Kg	SW8260B	 A			03/15/05	Т

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

- Total Solids

1051337001 BGES Inc. 4th & Gambell MW-2 S-9 Soil/Solid

96.7

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03/12/2005 11:05

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SM20 2540G

В

03/14/2005 11:34 Stephen C. Ede

Parameter -	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogra	phy/Mass Spe	ectroscopy		•			•		
				•.					
Surrogates	-								
Dibromofluoromethane <sum></sum>	105		. %	SW8260B	· A	83-119	03/12/05	03/15/05	TJE
1,2-Dichloroethane-D4 <surr></surr>	110		%	SW8260B	<b>A</b>	83-122	03/12/05	03/15/05	TJE
Toluene-d8 <surr></surr>	104		%	SW8260B	A	87-115	03/12/Ó5	03/15/05	TJE
4-Bromofluorobenzene <surr></surr>	95.2		%	SW8260B	A	46-133	03/12/05	03/15/05	TJE
•			•						
Solids									

03/15/05

JC

SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1051337002 BGES Inc. 4th & Gambell MW-2 S-14 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time
Collected Date/Time

03/21/2005 15:52 03/12/2005 11:44

Received Date/Time Technical Director 03/14/2005 11:34 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogra	phy/Mass Spe	ctroscopy							
Dichlorodifluoromethane	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	ТЛ
Chloromethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJI
Vinyl chloride	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJI
Bromomethane	108 Ų	108	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Chloroethane	108 U	108	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJI
Trichlorofluoromethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
1,1-Dichloroethene	27.0 U	27.0	ug/Kg	SW8260B	, <b>A</b>		03/12/05	03/15/05	ТЛ
Acetone	270 U	270 `	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJI
Carbon disulfide	108 U	108	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Methylene chloride	108 U	108	ug/Kg	SW8260B	A		03/12/05	03/15/05	ТЛ
trans-1,2-Dichloroethene	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
2-Butanone (MEK)	270 U	270	ug/Kg	SW8260B	, <b>A</b>		03/12/05	03/15/05	ТЛ
2,2-Dichloropropane	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	ТЛ
cis-1,2-Dichloroethene	27.0 U	27.0	ug/Kg	SW8260B	<b>A</b> .		03/12/05	03/15/05	TJ
1,1,1-Trichloroethane	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	ТЛ
1,1-Dichloroethane	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJI
Bromochloromethane	27.0 U	27.0	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	ТЛ
Chloroform	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Carbon tetrachloride	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Benzene	14.0 U	14.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
1.2-Dichloroethane	27.0 U	27.0	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	TJE
1,1-Dichloropropehe	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Trichloroethene	27.0 U	27.0	ug/Kg	SW8260B	Α `		03/12/05	03/15/05	TJI
1.2-Dichloropropane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Dibromomethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
Bromodichioromethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
2-Chloroethyl Vinyl Ether	108 U	108	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJI
1,1,2-Trichloroethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
cis-1,3-Dichloropropene	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	ТЛ
4-Methyl-2-pentanone (MIBK)	270 U	270	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJE
Toluene	53.9 U	53.9	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJE
trans-1,3-Dichloropropene	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJE

SGS Ref.# Client Name Project Name# Client Sample ID Matrix

1051337002 BGES Inc. 4th & Gambell MW-2 S-14 Soil/Solid

All Dates/Times are Alaska Standard Time

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03/21/2005 15:52 03/12/2005 11:44 03/14/2005 11:34

Collected Date/Time Received Date/Time

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
			·			<del></del>			
Volatile Gas Chromatog	raphy/Mass Spe	ectroscopy					•	•	
Tetrachloroethene	79500	1350	ug/Kg	SW8260B	, A		03/12/05	03/18/05	T.
1,3-Dichloropropane	27.0 U	27.0	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	T
2-Hexanone	270 U	<b>270</b> =	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
Dibromochloromethane	27.0 U	27.0	ug/Kg	SW8260B	<b>A</b>		03/12/05	03/15/05	7
1,2-Dibromoethane	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	. 7
1,1,1,2-Tetrachloroethane	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
Chlorobenzene	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	7
Ethylbenzene	27.0 U	27.0	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	.7
P & M -Xylene	53.9 U	53.9	ug/Kg	SW8260B	$\mathbf{A}_{\cdot}$		03/12/05	03/15/05	-
o-Xylene	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	-
Styrene	27.0 U	27.0	ug/Kg	SW8260B	· A		03/12/05	03/15/05	-
Bromoform	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	•
Isopropylbenzene (Cumene)	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	•
Bromobenzene	27.0 U	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	•
1,2,3-Trichloropropane	53.9 U	53.9	ug/Kg	SW8260B	<b>A</b>		03/12/05	03/15/05	
n-Propylbenzene	27.0 U	27.0	ug/Kg	SW8260B	· <b>A</b>		03/12/05	03/15/05	•
1,1,2,2-Tetrachloroethane	53.9 U	53.9	ug/Kg	SW8260B	· <b>A</b>		03/12/05	03/15/05	
2-Chlorotoluene	27.0 U	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	•
4-Chlorotoluene	27.0 Ù	27.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	•
1,3,5-Trimelhylbenzene	38.0	27.0	ug/Kg	SW8260B	A		03/12/05	03/15/05	
tert-Butylbenzene	27.0 U	27.0	ug/Kg	SW8260B	A			03/15/05	
1,2,4-Trimethylbenzene	32.6	27.0	ug/Kg	SW8260B	Α.			03/15/05	-
sec-Butylbenzene	27.0 U	27.0	ug/Kg	SW8260B	A			03/15/05	•
1,3-Dichlorobenzene	27.0 U	27.0	ug/Kg	SW8260B	A			03/15/05	7
4-Isopropyltoluene	27.0 U	27.0	ug/Kg	SW8260B	A	•		03/15/05	-
1,4-Dichlorobenzene	27.0 U	27.0	ug/Kg	SW8260B	A			03/15/05	7
1,2-Dichlorobenzene	27.0 U	27.0	ug/Kg	SW8260B	Α			03/15/05	7
n-Butylbenzene	27.0 U	27.0	ug/Kg	SW8260B	Α.			03/15/05	7
1,2-Dibromo-3-chloropropane	108 U	108	ug/Kg	SW8260B	Α			03/15/05	7
1.2.4-Trichlorobenzene	53.9 U	53.9	ug/Kg	SW8260B	Α	•		03/15/05	1
Hexachlorobutadiene	53.9 U	53.9	ug/Kg ug/Kg	SW8260B	A			03/15/05	1
Naphdialene	53.9 U	53.9	ug/Kg ug/Kg	SW8260B	A		03/12/05		7
Methyl-t-butyl ether	43.1 U	43.1	ug/Kg ug/Kg	SW8260B	A		03/12/05		ī
	.5.1 0	53.9	~\$\ 1.5	SW8260B	Ā		33,12,03	03/15/05	T

SGS Ref.# Client Name Project Name/# 1051337002 BGES Inc. .4th & Gambell MW-2 S-14

Client Sample ID Matrix

Soil/Solid

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03/21/2005 15:52

Collected Date/Time

03/12/2005 11:44

Received Date/Time Technical Director 03/14/2005 11:34 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
T 1-1-11 - C Chusunda - ma					1				
Volatile Gas Chromatogra	pny/mass sp	ectroscopy							
Surrogates									
Dibromofluoromethane <sutr></sutr>	109		%	SW8260B	A	83-119	03/12/05	03/15/05	TJ
1,2-Dichloroethane-D4 <surr></surr>	114	•	%	SW8260B	, <b>A</b>	83-122	03/12/05	03/15/05	ТЛ
Toluene-d8 <surr></surr>	102		%	SW8260B	Α	87-115	03/12/05	03/15/05	TJ
4-Bromofluorobenzene <surr></surr>	82.7		%	SW8260B	<b>A</b>	46-133	03/12/05	03/15/05	ТЛ
Solids	,						-		
Total Solids	97.3	•	%	SM20 2540G	В			03/15/05	Je

SGS Ref.# Client Name Project Name/# Client Sample JD Matrix 1051337003 BGES Inc. 4th & Gambell MW-2 S-19 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52

Collected Date/Time Received Date/Time 03/12/2005 12:50 03/14/2005 11:34

Technical Director

Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	phy/Mass S	pectroscopy	٠.,						
Dichlorodifluoromethane	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJ
Chloromethane	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJ
Vinyl chloride	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	TJ
Bromomethane	65.0 U	65.0	ug/Kg	SW8260B	· <b>A</b>		03/12/05	03/15/05	ŢĴ
Chloroethane	65.0 U	65.0	ug/Kg	SW8260B	· <b>A</b>		03/12/05	03/15/05	T.
Trichlorofluoromethane	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	T.
1,1-Dichloroethene	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJ
Acetone	162 U	162	ug/Kg	SW8260B	<b>A</b>		03/12/05	03/15/05	T
Carbon disulfide	65.0 U	65.0	ug/Kg	.SW8260B	A		03/12/05	03/15/05	T.
Methylene chloride	65.0 U	65.0	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	T.
trans-1,2-Dichloroethene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
2-Butanone (MEK)	152 U	162	ug/Kg		A		03/12/05	03/15/05	T.
2,2-Dichloropropane	16.2 U	16.2	ug/Kg	SW8260B	` <b>A</b>		03/12/05	03/15/05	Т
cis-1,2-Dichloroethene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
1,1,1-Trichloroethane	16.2 U	16.2	ug/Kg	SW8260B	. <b>A</b>	•	03/12/05	03/15/05	T.
1,1-Dichloroethane	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	T.
Bromochloromethane	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
Chloroform	16.2 U	16.2	ug/Kg	SW8260B	. <b>A</b>		03/12/05	03/15/05	T.
Carbon tetrachloride	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
Benzene	8.45 U	8.45	ug/Kg	SW8260B	A		03/12/05	03/15/05	T.
1,1-Dichloropropene	. 16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1,2-Dichloroethane	16.2 U	- 16.2	ug/Kg	SW8260B	Α,		03/12/05	03/15/05	T.
Trichloroethene	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	T.
1,2-Dichloropropane	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
Dibromomethane	16.2 U	16.2	ug/Kg	SW8260B	· A		03/12/05	03/15/05	T.
Bromodichioromethane	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	T.
2-Chloroethyl Vinyl Ether	65.0 U	65.0	ug/Kg	SW8260B	<b>A</b> ·		03/12/05	03/15/05	T.
1,1,2-Trichloroethane	16.2 U	16.2	ug/Kg	SW8260B	Α΄		03/12/05	03/15/05	TJ
cis-1,3-Dichloropropene	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	T
4-Methyl-2-pentanone (MIBK)	162 U	162	ug/Kg	SW8260B	A		03/12/05	03/15/05	T
Toluene	32.5 U	32.5	ug/Kg	SW8260B	A		03/12/05	03/15/05	TJ.
trans-1,3-Dichloropropene	16.2 U	16.2	ug/Kg	SW8260B	Α.		03/12/05	03/15/05	TJ

SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1051337003 BGES Inc. 4th & Gambell MW-2 S-19 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52 03/12/2005 12:50

Collected Date/Time
Received Date/Time

03/14/2005 11:34

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogra	aphy/Mass Spe	ectroscopy							
Tetrachloroethene	542	16.2	ug/Kg	SW8260B	Α		03/12/05	03/17/05	TJ
1,3-Dichloropropane	16.2 Ù	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
2-Hexanone	162 U	162	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
Dibromochloromethane	16,2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,1,1,2-Tetrachloroethane	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,2-Dibromoethane	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
Chlorobenzene	16.2 U	16.2	ug/Kg	SW8260B	Α	•	03/12/05	03/15/05	Т
Ethylbenzene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
P & M -Xylene	32.5 U	32.5	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
o-Xylene	16.2 U	16.2	ug/Kg	SW8260B	<b>A</b>		03/12/05	03/15/05	Т
Styrene	16.2 U	16.2	ug/Kg	SW8260B	· A		03/12/05	03/15/05	Т
Bromoform	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
Isopropylbenzene (Ciunene)	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
Bromobenzene	16,2 U	15.2	ug/Kg	. SW8260B	Α		03/12/05	03/15/05	Т
1,2,3-Trichloropropane	32.5 U	. 32.5	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
n-Propylbenzene	16.2 U	16,2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
1,1,2,2-Tetrachloroethane	32.5 U	32.5	ug/Kg	SW8260B	A ´		03/12/05	03/15/05	. 1
2-Chlorotoluene	16.2 U	16.2	ug/Kg	SW8260B	· A		03/12/05	03/15/05	7
4-Chlorotoluene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	1
1,3,5-Trimethylbenzene	16.2 U	16.2	ug/Kg	SW8260B	A		03/12/05	03/15/05	Т
tert-Butylbenzene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,2,4-Trimethylbenzene	16.2 U	16.2	ug/Kg	SW8260B	~ <b>A</b>			03/15/05	Т
sec-Butylbenzene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,3-Dichlorobenzene	16.2 U	16.2	ug/Kg	SW8260B	Α.		03/12/05	03/15/05	Т
4-Isopropyltoluene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,4-Dichlorobenzene	16.2 U	15.2	ug/Kg	SW8260B	· A		03/12/05	03/15/05	Т
1,2-Dichlorobenzene	16.2 U	16,2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
n-Butylbenzene	16.2 U	16.2	ug/Kg	SW8260B	Α		03/12/05	03/15/05	Т
1,2-Dibromo-3-chloropropane	65.0 U	65.0	ug/Kg	SW8260B	<b>A</b>		03/12/05	03/15/05	. T.
1,2,4-Trichlorobenzene	32.5 U	32.5	ug/Kg	SW8260B	Α .		03/12/05	03/15/05	T.
Hexachlorobutadiene	32.5 U	32.5	ug/Kg	SW8260B	Α		03/12/05		T.
Naphthalene	32.5 U	32.5	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T
Methyl-t-butyl ether	26.0 U	26.0	ug/Kg	SW8260B	Α		03/12/05	03/15/05	T.
1,2,3-Trichlorobenzene	32.5 U	32.5	ug/Kg	SW8260B	Α		03/12/05		T.

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1051337003 BGES Inc. 4th & Gambell . MW-2 S-19 Soil/Solid

All Dates/Limes are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52 03/12/2005 12:50

Collected Date/Time Received Date/Time

03/14/2005 11:34

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Ini
					. •				
Volatile Gas Chromatogra	phy/Mass Sp	ectroscopy					•		
Surrogates									•
Dibromofluoromethane <surr></surr>	106	•	%	SW8260B	A	83-119	03/12/05	03/15/05	T
1,2-Dichloroethane-D4 <sun></sun>	110		%	SW8260B	A	83-122	03/12/05	03/15/05	T
Toluene-d8 <suπ></suπ>	103		%	SW8260B	A	87-115	03/12/05	03/15/05	7
4-Bromofluorobehzene <suп></suп>	78.5		%	SW8260B	A	46-133	03/12/05	03/15/05	Т
Solids		,							
Total Solids	83.7		%	SM20 2540G	В			03/15/05	

SGS Bef.# Client Name Project Name/# Client Sample ID

Matrix

1051337004 BGES Inc. 4th & Gambell MW-3 S-5 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time 03/21/2005 15:52 03/13/2005 9:06 03/14/2005 11:34

Technical Director S

Stephen C. Ede

$\cdot \cap$	Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
	Volatile Gas Chromatogra	phy/Mass Sp	ectroscopy			·.				
	Dichlorodifluoromethane	12.6 U	12.6	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	TJE
(	Chloromethane	ຸ 12.6 ປັ	<b>12.6</b> .	ug/Kg	SW8260B	Α	,	03/13/05	03/15/05	TJE
П	Vinyl chloride	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Bromomethane	50.5 U	50.5	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
_	Chloroethane	50.5 U	· 50.5	ug/Kg	SW8260B	Α			03/15/05	TJE
$\Box$	Trichlorofluoromethane	12.6 U	12.6	ug/Kg	SW8260B	<b>A</b>		03/13/05	03/15/05	TJE
	1,1-Dichloroethene	12.6 U	12.6	ug/Kg	SW8260B	, A		03/13/05	03/15/05	TJE
ر	Acetone	126 U	126	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Carbon disulfide	50.5 U	50.5	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE.
	Methylene chloride	50.5 U	50.5	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
⊔.	trans-1,2-Dichloroethene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
_	2-Butanone (MEK)	126 U	126	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	2,2-Dichloropropane	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
LJ.	cis-1,2-Dichloroethene	12.6 U	12.6	ug/Kg	SW8260B	Α	′	03/13/05	03/15/05	TJE
_	1,1,1-Trichloroethane	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,1-Dichloroethane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	Bromochloromethane	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Chloroform	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
٦.	Carbon tetrachloride	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Benzene	6.56 U	6.56	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,1-Dichloropropene	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
٦	1,2-Dichloroethane	12.6 U	12.6	ug/Kg	SW8260B	A			03/15/05	TJE
	Trichloroethene	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,2-Dichloropropane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
7	Dibromomethane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	Bromodichioromethane	12.6 U	12.6	ug/Kg	SW8260B	Α			03/15/05	TJE
	1,1,2-Trichloroethane	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
7	2-Chloroethyl Vinyl Ether	50.5 U	50.5	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ŢJE
	cis-1,3-Dichloropropene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	4-Methyl-2-pentanone (MIBK)	126 U	126	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Toluene	25.2 U	25.2	ug/Kg	SW8260B	Α			03/15/05	TJE
	trans-1,3-Dichloropropene	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1051337004 BGES Inc. 4th & Gambell MW-3 S-5 Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52 03/13/2005 **9**:06

Collected Date/Time Received Date/Time

03/14/2005 11:34

Technical Director

Parameter	Results	PQL	Units	Method	Container JD	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	aphy/Mass Spe	ectroscopy							
Tetrachloroethene	3590	126	ug/Kg	SW8260B	A		03/13/05	03/17/05	TJI
1,3-Dichloropropane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
2-Hexanone	126 U	126	ug/Kg	SW8260B	Α .		03/13/05	03/15/05	TJI
Dibromochloromethane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
1,1,1,2-Tetrachloroethane	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
1,2-Dibromoethane	12.6 U	12.6	ug/Kg	SW8260B	<b>A</b> :		03/13/05	03/15/05	TJI
Chlorobenzene	12.6 (1	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
Ethylbenzene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
P & M -Xylene	25.2 U	25.2	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
o-Xylene	12.6 U	12.6	ug/Kg	SW8260B	<b>A</b>		03/13/05	03/15/05	ТЛ
Styrene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
Bromoform	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
Isopropylbenzene (Cumene)	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
Bromobenzene	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
1,2,3-Trichloropropane	25.2 U	25.2	ug/Kg	. SW8260B	· <b>A</b>		03/13/05	03/15/05	TJI
n-Propylbenzene	12.6 U	12.6	ug/Kg	SW8260B	· <b>A</b>		03/13/05	03/15/05	ΤЛ
1.1.2.2-Tetrachloroethane	25.2 U	25.2	ug/Kg	SW8260B	A		03/13/05	03/15/05	ΤЛ
2-Chlorotoluene	12.6 U	12.6	ug/Kg	SW8260B	<b>A</b>		03/13/05	03/15/05	TJ
4-Chlorotoluene	12.6 U	12.6	ug/Kg	SW8260B	À		03/13/05	03/15/05	TJ
1,3,5-Trimethylbenzene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
tert-Butylbenzene	12.6 U	12.6	ug/Kg	SW8260B	Α .		03/13/05	03/15/05	ΤЛ
1,2,4-Trimethylbenzene	12.6 U	12.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
sec-Butylbenzene	12.6 U	12.6	ug/Kg	SW8260B	. A		03/13/05	03/15/05	ТЛ
1,3-Dichlorobenzene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ΤЛ
4-Isopropyltoluene	12.6 U	12.6	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	ТЛ
1.4-Dichlorobenzene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
1,2-Dichlorobenzene	12.6 U	12.6	ug/Kg	SW8260B	Α,		03/13/05	03/15/05	TJI
n-Butylbenzene	12.6 U	12.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TI
1,2-Dibromo-3-chloropropane	50.5 U	50.5	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	ТЛ
1,2,4-Trichlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	A	<i>'</i> .	03/13/05	03/15/05	ТЛ
Hexachlorobutadiene	25.2 U	25.2	ug/Kg	SW8260B	A		03/13/05	03/15/05	TII
Naphthalene	25.2 U	25.2	ug/Kg	SW8260B	<b>A</b> ´ ·	·	03/13/05	03/15/05	TJI
Methyl-t-butyl ether	20.2 U	20.2	ug/Kg	SW8260B	A	•	03/13/05	03/15/05	TJI
1,2,3-Trichlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	Α .			03/15/05	TJE

SGS Ref.#
Client Name
Project Name/#
Client Sample ID
Matrix

1051337004 BGES Inc. 4th & Gambell MW-3 S-5 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52

Collected Date/Time Received Date/Time 03/13/2005 9:06 03/14/2005 11:34

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatoara	phy/Mass Spe	ectroscopy							
Surrogates		`							
Dibromofluoromethane <surr></surr>	114		%	SW8260B	Α.	83-119	03/13/05	03/15/05	TJ
1,2-Dichloroethane-D4 <surr></surr>	114	•	%	SW8260B	A	83-122	03/13/05	03/15/05	ТЛ
Toluene-d8 <surr></surr>	102		%	SW8260B	Α	87-115	03/13/05	03/15/05	TII
4-Bromofluorobenzene <surr></surr>	95.6	•	%	SW8260B	· A	46-133	03/13/05	03/15/05	TJ
					,			•	
Solids	•						•	•	
Total Solids	97.8		%	SM20 2540G	В			03/15/05	JO

SGS Refi# Client Name Project Name/# Client Sample ID Matrix 1051337005 BGES Inc. 4th & Gambell MW-3 S-11 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time

03/21/2005 15:52 03/13/2005 10:12 03/14/2005 11:34

Collected Date/Time Received Date/Time Technical Director

Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container JD	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogra	phy/Mass	Spectroscopy		•					
Dichlorodifluoromethane	20.1 U	20.1	ug/Kg	SW8260B	· A		03/13/05	03/15/05	ТЛ
Chloromethane	20.1 U	20.1	ug/Kg	SW8260B	, <b>A</b>		03/13/05	03/15/05	TJI
Vinyl chloride	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
Bromomethane	80.6 U	80.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
Chloroethane	80.6 U	80.6	ug/Kg	SWS260B	A		03/13/05	03/15/05	TJ
Trichlorofluoromethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
1,1-Dichloroethene	20.1 U	20.1	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
Acetone	201 U	201	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТJI
Carbon disulfide	80.6 U	80.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТJI
Methylene chloride	80.6 U	80.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
trans-1,2-Dichloroethene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
2-Butanone (MEK)	201 U	201	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
2,2-Dichloropropane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TЛ
1,1,1-Trichloroethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
1,1-Dichloroethane	. 20.1 U	20.1	ug/Kg	SW8260B	Α .		03/13/05	03/15/05	TJE
cis-1,2-Dichloroethene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Bromochlorometharie	20.1 U	20.1	ug/Kg	SW8260B	Α	,	03/13/05	03/15/05	ТЛ
Chloroform	20.1 U	20.1	ug/Kg	SW8260B	Α `		03/13/05	03/15/05	ТЛ
Carbon tetrachloride	20.1 U	20.1	ug/Kg	SW8260B	` <b>A</b>		03/13/05	03/15/05	TJE
Benzene	10.5 U	10.5	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
1,1-Dichloropropene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ŢJE
1,2-Dichloroethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TĴĒ
Trichloroethene	20.1 U	20.1	ug/Kg	SW8260B	Α .		03/13/05	03/15/05	TJE
1,2-Dichloropropane	20.1 U	20.1	ug/Kg	SW8260B	. ; <b>A</b>		03/13/05	03/15/05	TJE
Dibromomethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Bromodichioromethane	20.1 U	20.1	ug/Kg	SW8260B	, <b>A</b>		03/13/05	03/15/05	TJE
1,1,2-Trichloroethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
2-Chloroethyl Vinyl Ether	80.6 U	80.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
cis-1,3-Dichloropropene	20.1 U	20.1	ug/Kg	SW8260B	Α	•	03/13/05	03/15/05	TJE
4-Methyl-2-pentanone (MIBK)	201 U	201	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Toluene	40.3 U	40.3	ug/Kg	SW8260B	Α	•	03/13/05	03/15/05	TJE
trans-1,3-Dichloropropene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE

SGS Ref.#

Client Name Project Name/# Client Sample ID Matrix 1051337005

BGES Inc. 4th & Gambell MW-3 S-11

Soil/Solid

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time 03/21/2005 15:52 03/13/2005 10:12 03/14/2005 11:34

Technical Director Stephen C. Ede

Parameter		Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile	Gas Chromatogra	phy/Mass Spe	ectroscopy							
 Tetrachloro	ethene	5210	201	ug/Kg	SW8260B	Α		03/13/05	03/17/05	TJE
- 1,3-Dichlor	opropare	20.1 U	20.1	ug/Kg	SW8260B	Α	•	03/13/05	03/15/05	TJE
2-Hexanone	 B	201 U	201	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	TJE
Dibromoch	loromethane	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
1,1,2-Tetr	rachloroethane	20.1 U	20.1	ug/Kg	SW8260B	<b>A</b> `		03/13/05	03/15/05	TJE
1,2-Dibrom		20.1 U	20.1	ug/Kg .	SW8260B	Α		03/13/05	03/15/05	TJE
Chlorobenz		20.1 U	20.1	ug/Kg	SW8260B	A·		03/13/05	03/15/05	TJE
Ethylbenzer	ne	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
P & M -Xy		40.3 U	40.3	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
o-Xylene		20.1 U	20.1	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
Styrene	1	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Bromoform	l	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
` Isopropylbe	enzene (Cimiene)	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Bromobenz		20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
_	loropropane	40.3 U	40.3	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
1	rachloroethane	40.3 Ŭ	40.3	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
n-Propylher		20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
2-Chlorotol		20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
4-Chlorotol		20.1 U	20.1	ug/Kg	SWg260B	Α		03/13/05	03/15/05	TJE
	ethylbenzene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
tert-Butylbe	· ·	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
1	ethylbenzene	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
sec-Butylbe	•	20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
1,3-Dichlor		20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
4-lsopropyl		20.1 U	20.1	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
1,4-Dichlor		20.1 U	20.1	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
1,2-Dichlor		20.1 U	20.1	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
n-Butylben		20.1 U	20.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
-	no-3-chloropropane	80.6 U	80.6	ug/Kg	SW8260B	Α		_03/13/05	03/15/05	TJE
•	lorobenzene	40.3 U	40.3	ug/Kg	SW8260B	Α			03/15/05	TJE
Hexachloro		40.3 U	40.3	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Naphthalen		40.3 U	40.3	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
-	lorobenzene	40.3 U	40.3	ng/Kg	SW8260B	Α .		03/13/05	03/15/05	TJE
Methyl-t-bi		32.2 U	32.2	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1051337005 BGES Inc. 4th & Gambell MW-3 S-11 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time
Collected Date/Time

03/21/2005 15:52 03/13/2005 10:12 03/14/2005 11:34

Received Date/Time Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatoara	phy/Mass	Spectroscopy							
Surrogates	•								
Dibromofluoromethane <surr></surr>	111		%	SW8260B	. <b>A</b>	83-119	03/13/05	03/15/05	T.
1,2-Dichloroethane-D4 <sun></sun>	115		<b>%</b> ·	SW8260B	, <b>A</b>	83-122	03/13/05	03/15/05	T.
Toluene-d8 <surr></surr>	. 103		%	SW8260B	A	87-115	03/13/05	03/15/05	T.
4-Bromofluorobenzene <sum></sum>	91.5		%	SW8260B	A	46-133	03/13/05	03/15/05	T.
									•
Solids									
Total Solids	97.3		%	SM20 2540G	В	,		03/15/05	
•						-			

SGS Refi# Client Name Project Name/# Client Sample ID Matrix 1051337006 BGES Inc. 4th & Gambell MW-3 S-18 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time 03/21/2005 15:52 03/13/2005 11:36 03/14/2005 11:34 Stephen C. Ede

Technical Director

П	Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
			١							
П	Volatile Gas Chromatoara	phy/Mass S	pectroscopy							
	Dichlorodifluoromethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Chloromethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
$\bigcap$	Vinyl chloride	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Bromomethane	68.1 U	68.1	ug/Kg	SW8260B	Α	•	03/13/05	03/15/05	TJE
_	Chloroethane	68.1 U	68.1	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
$\Box$	Trichlorofluoromethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,1-Dichloroethene	17.0 U	17.0	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
٠.	Acetone	170 U	170	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
$\Box$	Carbon disulfide	68.1 U	68.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
11	Methylene chloride	68.1 U	68.1	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
U	trans-1,2-Dichloroethene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	2-Butanone (MEK)	170 U	170	ug/Kg	SW8260B	Α	•	03/13/05	03/15/05	TJE
11	2,2-Diohloropropane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
ٺا	1.1.1-Trichloroethane	17.0 U	17.0	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	TJE
	1,1-Dichloroethane	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	cis-1,2-Dichloroethene	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
با	Bromochloromethane	17.0 U	17.0	ug/Kg	SW8260B	Α	. '	03/13/05	03/15/05	TJE
	Chloroform	17.0 U	17.0	ug/Kg	SW8260B	Α	1	03/13/05	03/15/05	TJE
	Carbon tetrachloride	17.0 U	17.0	ug/Kg	SW8260B'	Α		03/13/05	03/15/05	TJE
	Benzene	8.86 U	8.86	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,1-Dichloropropene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,2-Dichloroethane	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
	Trichloroethene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,2-Dichloropropane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Dibromomethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Bromodichioromethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	1,1,2-Trichloroethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	2-Chloroethyl Vinyl Ether	68.1 U	68.1	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	cis-1,3-Dichloropropene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	4-Methyl-2-pentanone (MIBK)	170 U	170	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
	Toluene	34.1 U	34.1	ug/Kg	SW8260B	A			03/15/05	TJE
	trans-1,3-Dichloropropene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix 1051337006 BGES Inc. 4th & Gambell MW-3 S-18 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 03/21/2005 15:52 03/13/2005 11:36 03/14/2005 11:34

Received Date/Time Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	aphy/Mass Spe	ectroscopy							•
Tetrachloroethene	3190	170	ug/Kg	SW8260B	: <b>A</b>		03/13/05	03/17/05	TJ
1,3-Dichloropropane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	~ <b>TJ</b>
2-Hexanone	170 U	170	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJ
Dibromochloromethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
1,1,1,2-Tetrachloroethane	17.0 U	17.0	ug/Kg	SW8260B	Α	• •	03/13/05	03/15/05	T.
1,2-Dibromoethane	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
Chlorobenzene	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Ethylbenzene	17.0 Ŭ	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJ
P & M -Xylene	34.1 U	34.1	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
o-Xylene	17.0 Ŭ	17.0	ug/Kg	SW8260B	<b>A</b> .		03/13/05	03/15/05	TJ
Styrene	∙17.0 Ŭ	. 17.0 .	ug/Kg	SW8260B	A		03/13/05	03/15/05	T.
Bromoform	17.0 U	17.0	ug/Kg	SW8260B	<b>A</b> .		03/13/05	03/15/05	T
Isopropylbenzene (Cumene)	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	T.
Bromobenzene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
1,2,3-Trichloropropane	34.1 U	34.1	ug/Kg	SW8260B	<b>A</b> .		03/13/05	03/15/05	T.
1,1,2,2-Tetrachloroethane	34.1 U	34.1	ug/Kg	SW8260B	Α			03/15/05	T.
n-Propylbenzene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
2-Chlorotoluene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
4-Chlorotoluene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/1 <i>5/</i> 05	T.
1,3,5-Trimethylbenzene	17.0 U	17.0	ug/Kg	SW8260B	Α			03/15/05	Τ.
tert-Butylbenzene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
1,2,4-Trimethylbenzene	17.0 U	17.0	ug/Kg	SW8260B	Α.			03/15/05	T
sec-Butylbenzene	17.0 U	17.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
1,3-Dichlorobenzene	17.0 U	17.0	ug/Kg	SW8260B	A		03/13/05	03/15/05	T,
4-Isopropyltoluene	17.0 U	17.0	ug/Kg	SW8260B	Α			03/15/05	T
1,4-Dichlorobenzene	17.0 U	17.0	ug/Kg	SW8260B	·A		03/13/05		T.
1.2-Dichlorobenzene	17.0 U	17.0	ug/Kg	SW8260B	A			03/15/05	T
n-Butylbenzene	17.0 U	17.0	ug/Kg	SW8260B	. A			03/15/05	TJ
1,2-Dibromo-3-chloropropane	68.1 U	68.1	ug/Kg	SW8260B	A			03/15/05	TJ
1,2,4-Trichlorobenzene	34,1 U	34.1	ug/Kg	SW8260B	A		03/13/05		TJ
Hexachlorobutadiene	34.1 U	34.1	ug/Kg	SW8260B	• A		03/13/05	•	T
Naphthalene	34.1 U	34.1	ug/Kg	SW8260B	A		03/13/05		TJ
1,2,3-Trichlorobenzene	34.1 U	34.1	ug/Kg	SW8260B	A		03/13/05		TJ
Methyl-t-butyl ether	27.2 U	27.2	ug/Kg	SW8260B	A		03/13/05		TJ

SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1051337006 BGES Inc. 4th & Gambell MW-3 S-18 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time
Collected Date/Time

03/21/2005 15:52 03/13/2005 11:36

Received Date/Time

03/14/2005 11:34

Technical Director S

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatoara	ohy/Mass Spe	ctroscopy					•		:
Surrogates					•				
Dibromofluoromethane <surr></surr>	103		%	SW8260B	· A	83-119	03/13/05	03/15/05	ТЛ
1,2-Dichloroethane-D4 <surr></surr>	110	-	-%	SW8260B	Α	83-122	03/13/05	03/15/05	TJ
Toluene-d8 <surr></surr>	102		%	SW8260B	Α	87-115	03/13/05	03/15/05	TJ
4-Bromofluorobenzerre <surr></surr>	80.5	•	%	SW8260B	A	46-133	03/13/05	03/15/05	TJ
Solids				;					
Total Solids	81.6		. %	SM20 2540G	В			03/15/05	.]

SGS Ref.# Client Name Project Name/# Client Sample JD Matrix

1051337007 BGES Inc. 4th & Gambeil MW-4 S-4 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 03/21/2005 15:52 03/13/2005 13:59

Received Date/Time

03/14/2005 11:34

Technical Director

Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile <b>Gas</b> Chromatoara	phy/Mass	Spectroscopy			•				
Dichlorodifluoromethane	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
Chloromethane	14.4 U	14.4	ug/Kg	SW8260B	A	•	03/13/05	03/15/05	TJI
Vinyl chloride	14.4 U	14.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
Bromomethane	57.4 U	57.4	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJI
Chloroethane	57.4 U	57.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
Trichlorofluoromethane	14.4 U	14.4	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
1,1-Dichloroethene	14.4 U	14.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE
Acetone	144 U	144	ug/Kg	SW8260B	· <b>A</b>		03/13/05	03/15/05	TJE
Carbon disulfide	57.4 U	57.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Methylene chloride	57.4 U	57.4	ug/Kg	SW8260B	Α .		03/13/05	03/15/05	TJE
trans-1,2-Dichloroethene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
2-Butanone (MEK)	144 U	144	ug/Kg	SW8260B	· A		03/13/05	03/15/05	TJE
2,2-Dichloropropane	14.4 U	. 14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
cis-1,2-Dichloroethene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛЕ
1,1,1-Trichloroethane	14.4 U	14.4	ug/Kg	SW8260B	<b>A</b>		03/13/05	03/15/05	TJE
1,1-Dichloroethane	14.4 U	14.4	ug/Kg	SW8260B	<b>A</b>	•		03/15/05	TJE
Bromochloromethane	14.4 U	14.4	ug/Kg	SW8260B	. <b>A</b>			03/15/05	TJE
Chloroform	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Carbon tetrachloride	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJE
Benzene	7.46 U	7.46	ug/Kg	SW8260B	Α			03/15/05	TJE
1,2-Dichloroethane	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	TJE
1,1-Dichloropropene	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	TJE
Trichloroethene	14.4 U	14.4	ug/Kg	SW8260B	<b>A</b> .	,		03/15/05	TJE
1,2-Dichloropropane	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	TJE
Dibromomethane	14.4 U	14.4	ug/Kg	SW8260B	Α -			03/15/05	TJE
Bromodichioromethane	14.4 U	14.4	ug/Kg	SW8260B	. • <b>A</b>		03/13/05		TJE
2-Chloroethyl Vinyl Ether	57.4 U	57.4	ug/Kg	SW8260B	A			03/15/05	TJE
1,1,2-Trichloroethane	14.4 U	14.4	ug/Kg	SW8260B	Α .		03/13/05		TJE
cis-1,3-Dichloropropene	14.4 U	14.4	ug/Kg	SW8260B	Ā		03/13/05		TJE
4-Methyl-2-pentanone (MIBK)	144 U	144	ug/Kg	SW8260B	A		03/13/05		TJE
Toluene	28.7 U	28.7	ug/Kg	SW8260B	Ā		03/13/05		TJE
trans-1,3-Dichloropropene	14.4 U	14.4	ug/Kg	SW8260B	, А А		03/13/05		TJE

SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1051337007 BGES Inc. 4th & Gambell MW-4 S-4 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 03/21/2005 15:52 03/13/2005 13:59 03/14/2005 11:34 Stephen C. Ede

Received Date/Time Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogr	aphy/Mass Spe	ctroscopy							
,	11100	359	ug/Kg	SW8260B	Α		03/13/05	03/17/05	TJE
Tetrachloroethene	14.4 U	14.4	ug/Kg	SW8260B	Α			03/15/05	TJE
1,3-Dichloropropane	144 U	144	ug/Kg ug/Kg	SW8260B	\ A			03/15/05	TJE
2-Hexanone	14.4 U	14.4	ug/Kg ug/Kg	SW8260B	A			03/15/05	TJE
Dibromoohloromelhane	14.4 U	14.4	ug/Kg ug/Kg	SW8260B	A ·			03/15/05	ТЛЕ
1,2-Dibromoethane	14.4 U	14.4	ug/Kg ug/Kg	SW8260B	A			03/15/05	TJE
1,1,1,2-Tetrachloroethane		14.4	ug/Kg	SW8260B	A			03/15/05	TJI
Chlorobenzene	14.4 U	14.4	ug/Kg ug/Kg	SW8260B	A ·			03/15/05	ТЛЕ
Ethylbenzene	14.4 U	28.7	ug/K.g ug/K.g	SW8260B	Ā	•		03/15/05	TJE
P & M -Xylene	28.7 U	•		SW8260B	A:			03/15/05	TJE
o-Xylene	14.4 U	14.4	ug/Kg	SW8260B SW8260B				03/15/05	TJE
Styrene	14.4 U	14.4	ug/Kg		A				TJ
Bromoform	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	
Isopropylbenzene (Cumene)	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	TJ.
Bromobenzene	14.4 U	14.4	ug/Kg	SW8260B	<b>A</b>			03/15/05	TJ.
1,2,3-Trichloropropane	28.7 U	28.7	ug/Kg	SW8260B	. <b>A</b>			03/15/05	TJ.
n-Propylbenzene	14.4 U	14.4	ug/Kg	SW8260B	A			03/15/05	TJ
1,1,2,2-Tetrachloroethane	28.7 U	28.7	ug/Kg	SW8260B	Α			03/15/05	TJ.
2-Chlorotoluene	14.4 U	14.4	ug/Kg	_ SW8260B	Α		03/13/05	03/15/05	TJ.
4-Chlorotoluene	14.4 U	14.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
1,3,5-Trimethylbenzene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJ.
tert-Butylbenzene	14.4 U	14.4	· ug/Kg	SW8260B	À		03/13/05	03/15/05	TJ
1,2,4-Triniethylbenzene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJ
sec-Butylbenzene	14.4 U	14.4	ug/Kg	SW8260B	Α	٠	03/13/05	03/15/05	TJ
1.3-Dichlorobenzene	14,4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
4-Isopropyltoluene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
1,4-Dichlorobenzene	14.4 U	14.4	ug/Kg	SW8250B	A		03/13/05	03/15/05	TJ
1,2-Dichlorobenzene	14.4 U	14.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJ
n-Butylbenzene	14.4 U	14.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
1,2-Dibromo-3-chloropropane	57.4 U	57.4	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
1,2,4-Trichlorobenzene	28.7 U	28.7	ug/Kg	SW8260B	· A		03/13/05	03/15/05	ТЛ
Hexachlorobutadiene	28.7 U	28.7	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ŢЛ
Naphthalene	28.7 U	28.7	ug/Kg	SW8260B	Α		03/13/05	03/15/05	ТЛ
Methyl-t-butyl ether	23.0 U	23.0	ug/Kg	SW8260B	Α		03/13/05	03/15/05	TJI
1,2,3-Trichlorobenzene	28.7 U	28.7	ug/Kg	SW8260B	A	,		03/15/05	ТЛ

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix 1051337007 BGES Inc. 4th & Gambell MW-4 S-4 Soil/Solid All Dates/Times are Alaska Standard Time

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Received Date/Time Technical Director 03/14/2005 11:34 Stephen C. Ede

	Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	lnit
	Volatile Gas Chromatogra	phy/Mass S	pectroscopy				٠.			
	Surrogates		•							-
	Dibromofluoromethane <surr></surr>	111		%	SW8260B	Α	83-119	03/13/05	03/15/05	TIE
L_)	1,2-Dichloroethane-D4 <surr></surr>	115		%	SW8260B	Α	83-122	03/13/05	03/15/05	TJE
	Toluene-d8 <surr></surr>	104		%	SW8260B	Α	87-115	03/13/05	03/15/05	TJE
	4-Bromofluorobenzene <sun></sun>	90.2		%	SW8260B	<b>A</b> .	46-133	03/13/05	03/15/05	TJE
Π	Solids						:			
$\cup$	Total Solids	97.8		%	SM20 2540G	В	•		03/15/05	JC

SGS Ref.# Client Name Project Name/# Client Sample ID

Matrix

1051337008 · BGES Inc. 4th & Gambell MW-4 S-13 Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time Received Date/Time 03/21/2005 15:52 03/13/2005 15:10 03/14/2005 11:34

Technical Director

Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	phy/Mass Spe	ctroscopy							
Dichlorodifluoromethane	22.6 U	22.6	ug/Kg	SW8260B	A	•	03/13/05	03/15/05	TJ
Chloromethane	22.6 U	22.6	ug/Kg	SW8260B	A	•	03/13/05	03/15/05	TJ.
Vinyl chloride	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Bromomethane	90.4 U	90.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Chloroethane	90.4 U	90.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
Trichlorofluoromethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
1,1-Dichloroethene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ)
Acetone	226 U	226	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Carbon disulfide	90.4 U	90.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Methylene chloride	90.4 U	90.4	ug/Kg	SW8260B	Α.		03/13/05	03/15/05	TJ.
trans-1,2-Dichloroethene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
2-Butanone (MEK)	226 U	226	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
2,2-Dichloropropane	22.6 U	22.6	ug/Kg	SW8260B	<b>A</b> '		03/13/05	03/15/05	TJ
1,1-Dichloroethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
cis-1,2-Dichloroethene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ.
1,1,1-Trichloroethane	22.6 U	22.6	ug/Kg	SW8260B	· <b>A</b>		03/13/05	03/15/05	TJ
Bromochloromethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Chloroform	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Carbon tetrachloride	22.6 U	22.6	ug/Kg	SW8260B	<b>A</b> .		03/13/05	03/15/05	TJ
Benzene	11. <b>8 U</b>	11.8	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
1,1-Dichloropropene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
1,2-Dichloroethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
Trichloroethene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
1,2-Dichloropropane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
Dibromomethane	22.6 U	22.6	ug/Kg	SW8260B	A		-03/13/05	03/15/05	TJI
Bromodichioromethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	тлі
2-Chloroethyl Vinyl Ether	90.4 U	90.4	ug/Kg	SW8260B	A		03/13/05	03/15/05	ТЛ
1,1,2-Trichloroethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJ
cis-1,3-Dichloropropene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
4-Methyl-2-pentanone (MIBK)	226 U	226	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJI
Toluene	45.2 U	45.2	ug/Kg	SW8260B	A		03/13/05		TJI
trans-1,3-Dichloropropene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	TJE

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1051337008 BGES Inc. 4th & Gambell MW-4 S-13 Soil/Solid All Dates/Times are Alaska Standard Time

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03/21/2005 15:52 03/13/2005 15:10

Received Date/Time Technical Director 03/14/2005 11:34 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogr	aphy/Mass Spe	ectroscopy							
Tetrachloroethene	2130	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	T
1,3-Dichloropropane	22.6 U	22.6	ug/Kg	SW8260B	. <b>A</b>	•	03/13/05	03/15/05	TJ
2-Hexanone	226 U	226	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
Dibromochloromethane	22.6 U	22.6	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	T.
1,2-Dibromoethane	22.6 U	22.6	ug/Kg	SW8260B	Α.		03/13/05	03/15/05	Ţ
1,1,1,2-Tetrachloroethane	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	T.
Chlorobenzene	22.6 U	22.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
Ethylbenzene	22.6 U	22.6	ug/Kg	SW8260B	. <b>A</b>		03/13/05	03/15/05	T.
P & M -Xylene	45.2 U	45.2	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
o-Xylene	22.6 U	22.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
Styrene	22.6 U	22.6	ug/Kg	SW8260B	Α.		03/13/05	03/15/05	т.
Bromoform	22.6 U	22.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T.
Isopropylbenzene (Cumene)	22.6 U	22.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	T
Bromobenzene	22.6 U	22.6	ug/Kg	SW8260B	Α		03/13/05	03/15/05	Т
1,2,3-Trichloropropane	45.2 U	45.2	ug/Kg	SW8260B	A.		03/13/05	03/15/05	T
n-Propylbenzene	22.6 U	22.6	ug/Kg	SW8260B	A		03/13/05	03/15/05	T
1,1,2,2-Tetrachloroethane	45.2 Ŭ	45.2	ug/Kg	SW8260B	A			03/15/05	T
2-Chlorotoluene	22.6 U	22.6	ug/Kg	SW8260B	A			03/15/05	Т
4-Chlorotoluene	22.6 U	22.6	ug/Kg	SW8260B	A	•		03/15/05	T
1,3,5-Trimethylbenzene	22.6 U	22.6	ug/Kg	SW8260B	Α			03/15/05	Т
tert-Butylbenzene	22.6 U	22.6	·ug/Kg	SW8260B	 A			03/15/05	T
1,2,4-Trimethylbenzene	22.6 U	22.6	ug/Kg	SW8260B	A			03/15/05	T
sec-Butylbenzene	22.6 U	22.6	ug/Kg	SW8260B	. A			03/15/05	T.
1,3-Dichlorobenzene	22.6 U	22.6	ug/Kg	SW8260B	A			03/15/05	Т.
4-lsopropyltoluene	22.6 U	22.6	ug/Kg	SW8260B	A			03/15/05	т.
1,4-Dichlorobenzene	(22.6 U	22.6	ug/Kg	SW8260B	A			03/15/05	Т.
1,2-Dichlorobenzene	22.6 U	22.6	ug/Kg	SW8260B	A .			03/15/05	. T.
n-Butylbenzene	22.6 U	22.6	ug/Kg	SW8260B	Ā		03/13/05		T.
1,2-Dibromo-3-chloropropane	90.4 U	90.4	ug/Kg	SW8260B	A.		03/13/05		T.
1,2,4-Trichlorobenzene	45.2 U	. 45.2	ug/Kg ug/Kg	SW8260B	A		03/13/05		T
Hexachlorobutadiene	45.2 U	45.2 45.2	ug/Kg ug/Kg	SW8260B	· A		03/13/05		T.
Naphthalene	45.2 U	45.2 45.2	ug/Kg ug/Kg	SW8260B	A		03/13/05		
1,2,3-Trichlorobenzene	45.2 U	45.2	ug/Kg ug/Kg	SW8260B	A		03/13/05		TJ
Methyl-t-butyl ether	36.2 U	45.2 36.2	ug/Kg ug/Kg	SW8260B	A A	•		03/15/05	TJ TJ

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix 1051337008 BGES Inc. 4th & Gambell MW-4 S-13 Soil/Solid All Dates/Times are Alaska Standard Time

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Technical Director

03/21/2005 15:52 03/13/2005 15:10 03/14/2005 11:34 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromatogra	phy/Mass Spe	ectroscopy	,						
Surrogates									
Dibromofluoromethane <surt></surt>	113		%	SW8260B	, <b>A</b>	83-119	03/13/05	03/15/05	TJ
1,2-Dichloroethane-D4 <surr></surr>	11 <b>7</b>		%	SW8260B	. <b>A</b>	83-122	03/13/05	03/15/05	TJ.
Toluene-d8 <surr></surr>	104		%	`SW8260B	` <b>A</b>	87-115	03/13/05	03/15/05	TJ.
4-Bromofluorobenzene <surr></surr>	94.7		<b>%</b>	SW8260B	A	46-133	03/13/05	03/15/05	TJ
Solids									
Total Solids	95.4		%	SM20 2540G	В	•		03/15/05	J

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Printed Date/Time
Collected Date/Time

03/21/2005 15:52 03/14/2005 0:00

Received Date/Time Technical Director 03/14/2005 11:34 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile <b>G</b> as Chromatogra	phy/Mass Spe	ectroscopy							
Dichlorodifluoromethane	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	TJ
Chloromethane	25.2 U	25.2	ug/Kg	SW8260B	, A		03/14/05	03/16/05	TJ
Vinyl chloride	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	TJ
Bromomethane	101 U	101	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJ.
Chloroethane	101 U	. 101	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJ
Trichlorofluoromethane	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	ТЛ
1,1-Dichloroethene	25.2 U	25.2	ug/Kg	SW8260B	<b>A</b> .	•	03/14/05	03/16/05	TJI
Acetone	252 U	252	ug/Kg	SW8260B	A		03/14/05	03/16/05	ΤЛ
Carbon disulfide	101 U	101	ug/Kg	SW8260B	Α		03/14/05	03/16/05	ТЛ
Methylene chloride	101 U	. 101	ug/Kg	SW8260B	Α	•	03/14/05	03/16/05	ТЛ
trans-1,2-Dichloroethene	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	TЛ
2-Butanone (MEK)	252 U	252	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJ.
2,2-Dichloropropane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJ
cis-1,2-Dichloroethene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJ.
1,1,1-Trichloroethane	25.2 U	25.2	ug/Kg	SW8260B	. <b>A</b>		03/14/05	03/16/05	TJI
1,1-Dichloroethane	25.2 U	25.2	ug/Kg	SW8260B	A	•	03/14/05	03/16/05	ТЛ
Bromochloromethane	25.2 U	25.2	ug/Kg	SW8260B	<b>A</b> ;		03/14/05	03/16/05	ТЛ
Chloroform	25.2 U	25.2	ug/Kg	SW8260B	. <b>A</b>		03/14/05	03/16/05	ТЛ
Carbon tetrachloride	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	ТЛ
Benzene	13.1 U	13.1	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJI
1,1-Dichloropropene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJI
1,2-Diohloroethane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJI
Trichloroethene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	ТЛ
1,2-Dichloropropane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJI
Dibromomethane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	ТЛ
Bromodichioromethane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	TJI
1,1,2-Trichloroethane	25.2 U	25.2	ug/Kg	SW8260B	· A		03/14/05	03/16/05	тл
2-Chloroethyl Vinyl Ether	101 U	101	ug/Kg	SW8260B	<b>A</b>		03/14/05	03/16/05	ТЛ
cis-1,3-Dichloropropene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	ТЛ
4-Methyl-2-pentanone (MIBK)	252 U	252	ug/Kg	SW8260B	A		03/14/05	03/16/05	ТЛ
Toluene	50.5 U	50.5	ug/Kg	SW8260B	· <b>A</b>		03/14/05		TJE
trans-1,3-Dichloropropene	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05		TJE

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Printed Date/Time
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03/21/2005 15:52 03/14/2005 0:00 03/14/2005 11:34

Received Date/Time
Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
a diameter					<del></del>		<del></del>		
Volatile Gas Chromatogra	phy/Mass Spe	ctroscopy	•						
Tetrachloroethene	. 25,2 U	, 25.2	ug/Kg	SW8260B	A	4	03/14/05	03/17/05	T
1,3-Diohloropropane	25.2 U	25.2	ug/Kg	SW8260B	Α .		03/14/05	03/16/05	T
2-Hexanone	252 U	252	ug/Kg	SW8260B	Α		03/14/05	03/16/05	T
Dibromochloromethane	25.2 U	25.2	ug/Kg	SW8260B	· <b>A</b>		03/14/05	03/16/05	7
1,1,1,2-Tetrachloroethane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
1,2-Dibromoethane	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
Chlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
Ethylbenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	,1
P & M -Xylene	50.5 U	50.5	ug/Kg	SW8260B	Α .	3	03/14/05	03/16/05	7
o-Xylene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
Styrene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
Bromoform	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	7
Isopropylbenzene (Cmnene)	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	•
Bromobenzene	25.2 U	25.2	ug/Kg	SW8260B	Α	• ,•	03/14/05	03/16/05	-
1.2.3-Trichloropropane	50.5 U	50.5	ug/Kg	SW8260B	Α	•	03/14/05	03/16/05	-
n-Propylbenzene	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	•
1,1,2,2-Tetrachloroethane	50.5 U	50.5	ug/Kg	SW8260B	Á		03/14/05	03/16/05	•
2-Chlorotoluene	25.2 U	25.2	.ug/Kg	SW8260B	Α		03/14/05	03/16/05	7
4-Chlorotoluene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	•
1,3,5-Trimethylbenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	•
tert-Butylbenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	•
1,2,4-Trimethylbenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	-
sec-Butylbenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	-
1,3-Dichlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	-
4-Isopropyltoluene	25.2 U	25.2	ug/Kg	SW8260B	Α		03/14/05	03/16/05	•
1.4-Dichlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	A			03/16/05	-
1,4-Dichlorobenzene	25.2 U	25.2	ug/Kg	SW8260B	A		03/14/05	03/16/05	-
- <b>-</b> -	25.2 U	25.2	ug/Kg	SW8260B	A			03/16/05	-
n-Butylbenzene	101 U	101	ug/Kg	SW8260B	A			03/16/05	-
1,2-Dibrbmo-3-chloropropane	50.5 U	50.5	ug/Kg	SW8260B	Α			03/16/05	7
1,2,4-Trichlorobenzene	50.5 U	50.5	ug/Kg ug/Kg	SW8260B	 A			03/16/05	1
Hexachlorobutadiene	50.5 U	50.5	ug/Kg.	SW8260B	A ·			03/16/05	7
Naphthalene	50.5 U	50.5	ug/Kg ug/Kg	SW8260B	. <b>A</b>			03/16/05	7
1,2,3-Trichlorobenzene	40.4 U	40.4	ug/Kg ug/Kg	SW8260B	A			03/16/05	7
Methyl-t-butyl ether	40.4 U	<del>4</del> 0.4	nR.v.R	3 H 0200D	Λ.		17/03	, 05/10/05	

SGS Ref.# Client Name Project Name/# Client Sample ID Matrix

1051337009 BGES Inc. 4th & Gambell Trip Blanks Soil/Solid All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 03/21/2005 15:52 03/14/2005 0:00

Received Date/Time

03/14/2005 11:34

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	phy/Mass Spectr	oscopy							
Surr0gates									
Dibromofluoromethane <sun></sun>	108		%	SW8260B	Α	83-119	03/14/05	03/16/05	T
1,2-Dichloroethane-D4 <surr></surr>	118	•	′ %	SW8260B	A	83-122	03/14/05	03/16/05	T
Toluene-d8 <surr></surr>	105		%	SW8260B	A	87-115	03/14/05	03/16/05	T
4-Bromofluorobenzene <surr></surr>	102		%	SW8260B	A	46-133	03/14/05	03/16/05	T
Solids								٠	
Total Solids	100		%	SM20 2540G	A			03/15/05	
•									



				J.				
SGS Ref.# Client Name Project Name/#	614291 BGES Inc. 4th & Gambell Soil/Solid	Method Blank			Printed Prep	Date/Time Batch Method Date	03/24/2005 14:58 VXX 13340 SW5035 03/15/2005	
Matrix	2011/2011a							
QC results affect the	following production: 51337002, 1051337		04, 10513370	05, 1051337006,	1051337007,	1051337008,		
QC results affect the 1051337001, 10	following production		04, 10513370	05, 1051337006,	1051337007,	1051337008,		

SGS Ref.# Client Name Project Name/# 614291 BGES Inc. Method Blank

Printed Date/Time Batch Prep

03/24/2005 14:58 VXX 13340

Project Name/# 4th & Gambel Matrix Soil/Solid	1			Method Date	SW5035 . 03/15/2005	
Parameter	Results	Reporting Limit	Units		Analysis Date	Ini
Volatile Gas Chromatograp	hy/Mass Spe	ctroscopy				
Dichlorodifluoromethane	25.0 U	25.0	ug/Kg		03/15/05	T
Chloromethane	25.0 U	25.0	ug/Kg		03/15/05	T.
Vinyl chloride	25.0 U	25.0	ug/Kg		03/15/05	T.
Bromomethane	100 U	100	ug/Kg		03/15/05	T.
Chloroethane	100 U	100	ug/Kg		03/15/05	T.
Trichlorofluoromethane .	25.0 U	25.0	ug/Kg		03/15/05	T.
1,1-Dichloroethene	25.0 U	25.0	ug/Kg		03/15/05	T.
Acetone	250 U	250	ug/Kg		03/15/05	T
Carbon disulfide	100 U	100	ug/Kg		03/15/05	T
Methylene chloride	100 U	100	ug/Kg		03/15/05	T
trans-1,2-Dichloroethene	25.0 U	25.0	ug/Kg		03/15/05	T
2-Butanone (MEK)	250 U	250	ug/Kg		03/15/05	T
2,2-Dichloropropane	25.0 U	25.0	ug/Kg		03/15/05	T.
1,1,1-Trichloroethane	25.0 U	25.0	ug/Kg		03/15/05	TJ
cis-1,2-Dichloroethene	25.0 U	25.0	ug/Kg		03/15/05	T
1,1-Dichloroethane	25.0 U	25.0	ug/Kg		03/15/05	T
Bromochloromethane	25.0 U	25.0	ug/Kg		03/15/05	T
Chloroform	25.0 U	25.0	ug/Kg		03/15/05	T
Carbon tetrachloride	25.0 U	25.0	ug/Kg		03/15/05	T
Benzene	13.0 U	13.0	ug/Kg		03/15/05	T
1,2-Dichloroethane	25.0 U	25.0	ug/Kg		03/15/05	T
1,1-Dichloropropene	25.0 U	25.0	ug/Kg		03/15/05	TJ
Trichloroethene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,2-Dichloropropane	25.0 U	25.0	ug/Kg		03/15/05	TJ
Dibromomethane	25.0 U	25.0	ug/Kg		03/15/05	TJ
Bromodichloromethane	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,1,2-Trichloroethane	25.0 U	25.0	ug/Kg		. 03/15/05	TJ
2-Chloroethyl Vinyl Ether	100 U	100	ug/Kg		03/15/05	TJ
cis-1,3-Dichloropropene	25.0 U	25.0	ug/Kg		03/15/05	TJ
4-Methyl-2-pentanone (MIBK)	25.0 U	250	ug/Kg		03/15/05	TJ
Toluene	50.0 U	50.0	ug/Kg		03/15/05	TJ
trans-1,3-Dichloropropene	25.0 U	25.0	ug/Kg		03/15/05	TJ
Tetrachloroethene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,3-Dichloropropane	25.0 U	25.0	ug/Kg		03/15/05	TJ
2-Hexanone	25.0 U	25.0	ug/Kg		03/15/05	TJ
Dibromochloromethane		25.0	ug/Kg		03/15/05	TJ
1,1,1,2-Tetrachloroethane	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,2-Dibromoethane	25.0 U	25.0	ug/Kg		03/15/05	TJ
Chlorobenzene	25.0 U		ug/Kg		03/15/05	TJI
Chlorochizene	25.0 U	25.0	ng/wg		35	1.11

SGS Ref.# Client Name Project Name/# Matrix

614291 BGES Inc.

4th & Gambell

Method Blank

Printed Date/Time Prep

Batch Method

03/24/2005 14:58 VXX 13340 SW5035 03/15/2005

Date

Parameter	Results	Reporting Limit	Units	·	Analysis Date	Init
Volatile Gas Chromatography	//Mass Spe	ctroscopy				
Ethylbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
P & M -Xylene	50.0 U	50.0	ug/Kg		03/15/05	TJ
o-Xylene	25.0 U	25.0	ug/Kg		03/15/05	TJ
Styrene	25.0 U	25.0	ug/Kg		03/15/05	TJ
Bromoform	25.0 U	25.0	ug/Kg		03/15/05	TJ
Isopropylbenzene (Cumene)	25.0 U	25.0	ug/Kg		03/15/05	TJ
Bromobenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,2,3-Trichloropropane	50.0 U	50.0	ug/Kg		03/15/05	TJ
1,1,2,2-Tetrachloroethane	50.0 U	50.0	ug/Kg		03/15/05	TJ
n-Propylbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
2-Chlorotoluene	25.0 U	25.0	ug/Kg		03/15/05	TJ
4-Chlorotoluene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,3,5-Trimethylbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
tert-ButyIbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,2,4-Trimethylbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
sec-Butylbenzene	25.0 U	25.0	ug/Kg	•	03/15/05	TJ
1,3-Dichlorobenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
4-Isopropyltoluene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,4-Dichlorobenzene	25.0 U	25.0	ug/Kg	• •	03/15/05	TJ
1,2-Dichlorobenzene	25.0 U	25.0	ug/Kg	•	03/15/05	TJ
n-Butylbenzene	25.0 U	25.0	ug/Kg		03/15/05	TJ
1,2-Dibromo-3-chloropropane	100 U	100	ug/Kg		03/15/05	. тл
1,2,4-Trichlorobenzene	50.0 U	50.0	ug/Kg	•	03/15/05	TJ
Hexachlorobutadiene	50.0 U	50.0	. ug/Kg		03/15/05	TJ
Naphthalene	50.0 U	50.0	ug/Kg		03/15/05	TJ
Methyl-t-butyl ether	40.0 U	40.0	ug/Kg		03/15/05	TJ
1,2,3-Trichlorobenzene	50.0 U	50.0	ug/Kg	•	03/15/05	TJ
Surrogates	- 3 0		- <del>-</del>		•	
Dibromofluoromethane <surr></surr>	112		%		03/15/05	TI
1,2-Dichloroethane-D4 <surr></surr>	116		%		03/15/05	TJ
Toluene-d8 <surr></surr>	103		%	•	03/15/05	TJ
4-Bromofluorobenzene <surr></surr>	102	•	%		03/15/05	TJ
Batch VMS 7326						



_]	SGS Ref.#	614292 I	ab Contro	l Sample			Prin Pren	ted Date/Time Batch	03/24/200: VXX 1:	5 14:5 <b>8</b> 3340	,
	Client Name Project Name/# Matrix	BGES Inc. 4th & Gamb Soil/Solid	ell				rieļ	Method Date	SW5035 03/15/2005		,
]	QC results affect the f 1051337001, 105				4, 10513370	005, 1051337006	5, 10513376	007, 10513370	08, 10513370	09	
	Sample Remarks: LCS			-				·			
				QC	Pet	LCS/LCSD		RPD	Spiked	Analysis	



614292 Lab Control Sample

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BGES Inc.

4th & Gambell

Method Date VXX 13340 SW5035 03/15/2005

Client Name
Project Name/#
Matrix

Parameter \		QC Pot sults Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date	Init
Volatile <b>G</b> as Chromatog	graphy/Mass	Speotrosco	PY					
Dichlorodifluoromethane	LCS 71		(34-136)			750 ug/Kg	03/15/05	TJ
Chloromethane	LCS 73	3 98	(51-129)			750 ug/Kg	03/15/05	TJ
Vinyl chloride	LCS 75	55 101	(58-126)		•	750 ug/Kg	03/15/05	TJ
Bromomethane	LCS 79	2 106	(45-141)			750 ug/Kg	03/15/05	TJ
Chloroethane	LCS 82	22 110	(41-141)			750 ug/Kg	03/15/05	TJ
Trichlorofluoromethane	LCS 70	06 94	(49-139)			750 ug/Kg	03/15/05	TJ
1,1-Dichloroethene	LCS 86	115	(81-136)			750 ug/Kg	03/15/05	TJ
Acetone	LCS 22	270 101	(40-141)			2250 ug/Kg	03/15/05	ŢJ
Carbon disulfide	LCS 11	30 100	(62-145)			1130 ug/Kg	03/15/05	TJ
Methylene chloride	LCS 82	110	(63-137)	•		750 ug/Kg	03/15/05	TJ
trans-1,2-Dichloroethene	LCS 81	8 109	(81-130)			750 ug/Kg	03/15/05	TJ
2-Butanone (MEK)	LCS 20	91 .	(40-135)		÷	2250 ug/Kg	03/15/05	TJ
2,2-Dichloropropane	LCS 88	118	(83-134)	•	٠	750 ug/Kg	03/15/05	TJ
1,1,1-Trichloroethane	LCS 81	9 109	(83-129)			750 ug/Kg	03/15/05	ŢJ
cis-1,2-Dichloroethene	LCS 83	4 111	(82-124)			750 ug/Kg	03/15/05	TJ
1,1-Dichloroethane	LCS 85	66. 114	(73-125)			750 ug/Kg	03/15/05	TJ
Bromochloromethane	LCS 82	27 110	(71-127)			750 ug/Kg	03/15/05	TJ
Chloroform	LCS 88	118	(72-124)			750 ug/Kg	03/15/05	TJ
Carbon tetrachloride	LCS 82	2 110	(67-133)			750 ug/Kg	03/15/05	TJ
Benzene	LCS 85	3 . 114	(86-122)			750 ug/Kg	03/15/05	TJ.
1,2-Dichloroethane	LCS 89	5 119	(82-136)			750 ug/Kg	03/15/05 <b>38</b>	

SGS Ref.#

614292 Lab Control Sample

Printed Date/Time

03/24/2005 14:58

Prep

Batch Method VXX 13340

Date

od SW5035 03/15/2005

Client Nam	e
Project Nar	ne/#
Motrix	

BGES Inc. 4th & Gambell Soil/Solid

C /	Matrix Soil/Solid				· · · · · · · · · · · · · · · · · · ·	<u></u>	<u>.                                    </u>			<u> </u>
	Parameter		QC Results	Pet Recov_	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date	Init
	Volatile Gas Chromatograp	ohy/Ma	ss Spec	troscopy	•					
	1,1-Dichloropropene	LCS	799	107	(88-131)			750 ug/Kg	03/15/05	TJE
П	Trichloroethene	LCS	850	113	(77-124)			750 ug/Kg	03/15/05	TJE
	1,2-Dichloropropane	LCS	862	115	(71-120)			750 ug/Kg	03/15/05	TJE
	Dibromomethane	LCS	842	112	(79-128)	•	•	750 ug/Kg	03/15/05	TJE
	Bromodichioromethane	LCS	888	118	(79-123)			750 ug/Kg	03/15/05	TJE
	2-Chloroethyl Vinyl Ether	LCS	1280	114	(32-149)			1130 ug/Kg	03/15/05	TIE
	1,1,2-Trichloroethane	LCS	828	110	(81-123).		•	750 ug/Kg	03/15/05	TJE
\ \ 	cis-1,3-Dichloropropene	LCS	877	117	(72-126)			750 ug/Kg	03/15/05	TJE
	4-Methyl-2-pentanone (MIBK)	LCS	2830	126	(80-129)			2250 ug/Kg	03/15/05	TJE .
Π	Toluene	LCS	785	105	(80-123)			750 ug/Kg	03/15/05	TJE
IJ	trans-1,3-Dichloropropene	LCS	858	114	(65-125)		•	750 ug/Kg	03/15/05	TJE (
	Tetrachloroethene	LCS	820	109	(78-135)			750 ug/Kg	03/15/05	TJE
	1,3-Dichloropropane	LCS	849	113	(76-123)			750 ug/Kg	03/15/05	TJE
	2-Hexanone	LCS	2850	126	(75-134)			2250 ug/Kg	03/15/05	TJE
	Dibromochloromethane	LCS	851	113	(78-130)			750 ug/Kg	03/15/05	TJE ·
<u> </u>	1,1,1,2-Tetrachloroethane	LCS	857	114	(75-125)			750 ug/Kg	03/15/05	TJE
	1,2-Dibromoethane	LCS	859	115	(70-124)	•		750 ug/Kg	03/15/05	TJE
$\Box$	Chlorobenzene	LCS	795	106	(86-123)			750 ug/Kg	03/15/05	TJE
	Ethylbenzene	LCS	833	111	(84-127)			750 ug/Kg	03/15/05	TJE
	P & M -Xylene	LCS	1620	108	(88-124)			1500 ug/Kg	03/15/05	TJE
	o-Xylene	LCS	787	105	(87-123)		•	750 ug/Kg	03/15/05 <b>39</b>	TJE

SGS Ref.#

614292 Lab Control Sample

Printed Date/Time
Prep Batch

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Client Name Project Name/# BGES Inc.
4th & Gambell

Method Date VXX 133 SW5035 03/15/2005

()	Matrix Soil/Solid								· :	·
	Parameter		QC Results	Pet Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date	Init
	Volatile Gas Chromatograp	hy/Ma	ss Spect	roscopy						
	Styrene	LCS	825	110	( 87-124 )			750 ug/Kg	03/15/05	TJE
	Bromoform	LCS	821	109	(72-130)			750 ug/Kg	03/15/05	TJE
U	Isopropylbenzene (Cumene)	LCS	805	107	(90-126)			750 ug/Kg	03/15/05	TJE
	Bromobenzene	LCS	771	103	(66-121)			750 ug/Kg	03/15/05	TJE
	1,2,3-Trichloropropane	LCS	817	109	. (87-128)			750 ug/Kg	03/15/05	TJE
	1,i,2,2-Tetrachloroethane	LCS	819	109	(77-132)			750 ug/Kg	03/15/05	TJE ·
· []	n-Propylbenzene	LCS	791	106	(88-131)			750 ug/Kg	03/15/05	TJE
	2-Chlorotoluene	LCS	777	104	(85-128)			750 ug/Kg	03/15/05	TJE
	4-Chlorotoluene	LCS	795	106	(87-126)			750 ug/Kg	03/15/05	TJE
	1,3,5-Trimethylbenzene	LCS	783	104	(89-128)			750 ug/Kg	03/15/05	TJE
	tert-Butylbenzene	LCS	795	106	(89-128)			750 ug/Kg	03/15/05	TJE
	1,2,4-Trimethylbenzene	LCS	759	101	(88-125)	•		750 ug/Kg	03/15/05	TJE
	sec-Butylbenzene	LCS	837	112	(90-132)			750 ug/Kg	03/15/05	TJE
	1,3-Dichlorohenzene	LCS	788	105	(87-121)	,		750 ug/Kg	03/15/05	TJE
$\cap$	4-Isopropyltoluene	LCS	787	105	(91-127)			750 ug/Kg	03/15/05	TJE
	1,4-Dichlorobenzene	LCS	778	104	(87-125)		۲,	750 ug/Kg	03/15/05	TJE
	1,2-Dichlorobenzene	LCS	772	103	(85-119)			750 ug/Kg	03/15/05	TJE
	n-Butylbenzene	LCS	822	110	(88-130)		•	750 ug/Kg	03/15/05	TJE
	1,2-Dibromo-3-chloropropane	LCS	814	108	(81-130)		٦	750 ug/Kg	03/15/05	TJE
	1,2,4-Trichlorobenzene	LCS	824	110	(83-125)			750 ug/Kg	03/15/05	TJE
	Hexachlorobutadiene	LCS	782	104	(84-134)	•		750 ug/Kg		TJE
1	,								40	•

Client Name

614292 Lab Control Sample Printed Date/Time
Prep Batch
Method

03/24/2005 14:58

VXX SW5035 13340

BGES Inc.

Project Name/# Matrix	4th & Gambell Soil/Solid					·	Date	03/15/2005		
Parameter	,		QC Results	Pet Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date	Init
Volatile Gas Cl	nromatograph	y/Ma	ss Spec	troscopy					,	
Naphthalene		LCS	784	105	(79-122)			750 ug/Kg	03/15/05	TJE
Methyl-t-butyl ether		LCS	1250	111	(85-122)			1130 ug/Kg	03/15/05	TJE
1,2,3-Trichlorobenzer	ne	LCS	803	107	(79-129)			750 ug/Kg	03/15/05	TJE
Surrogates Dibromofluorometha	ne <surr></surr>	LCS		111	(83-119)			750 ug/Kg	03/15/05	TJE
1,2-Dichloroethane-D	04 <surt></surt>	LCS		111	(83-122)			750 ug/Kg	03/15/05	TJE
Toluene-d8 <surr></surr>		LCS		104	(87-115)			750 ug/Kg	03/15/05	ТЛ
4-Bromofluorobenzer	ne <surr></surr>	LCS		102	(46-133)			750 ug/Kg	03/15/05	ТЛЕ
Method SV	MS 7326 V8260B P 5890 Series II M	ISI VI	MA		·			·		



	SGS Ref.#	614326 614327	Matrix S Matrix S	pike pike Duplic	cate		Pri Pre	nted Date/Time p Batch Method Date		3340 action SW82	260 Fiel
()	Original	1051054002									
	Matrix	Soil/Solid						<del></del>			
	QC results affect the for 1051337001, 10513			37004, 105	1337005,	1051337006,	1051337	7007, 1051337008	3, 105133700	9	
		result for 4-methy QL in the origina		one is bias	ed high and	d does not me	et labora	tory QC criteria.	This analyte	is not detect	ted
		oresults for 4-me not detected abo					nigh and	do not meet labor	atory QC crit	teria. These	
 	Parameter	Qualifiers	Original - Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date	Init
	Volatile Gas Cl	hromatograph	y/Mass	Spectro:	всору						



Matrix Spike Matrix Spike Duplicate

Printed Date/Time
Prep Batch

03/24/2005 14:58 VXX 13340

Method

Vol. Extraction SW8260 Fiel

Date 03/15/2005

Original

1051054002

- > Original	1051054002										
Matrix	Soil/Solid							·	_		
Parameter	Qualifiers	Ori <b>ginal</b> Result	QC Result	Pet Recov	MS/MSD Limits	R <b>P</b> D	RPD Limits		iked lourit	Analysis Date	Init
Volatile Gas C	hromatograp	hy/Mass	Spectro	scopy			•				
Dichlorodiffuoromet	hane MS	17.3 U	517	100	( 34-136 )			51	ug/K	g 03/16/05	TJE
•	MSE		471	91		· 9	(<20)	51	ug/K	g 03/16/05	TJE
Chloromethane	MS	17.3 U	523	101	(51-129)			51	ug/K	g 03/16/05	TJE
	MSI		495	96		6	(<20)	51'	ug/K	g 03/16/05	TJE
Vinyl chloride	MS	17.3 U	487	94	(58-126)			51	ug/K	g 03/16/05	TJE
η ,	MSE	)	446	86	•	9	(< 20)	·51′	ug/K	g 03/16/05	TJE
Bromomethane	MS	69.0 U	562	109	(45-141)			51	ug/K	g 03/16/05	TJE
<b>-</b>	· MSE		546	105		3	(<20)	51	ug/K	g 03/16/05	TJE
Chloroethane	MS	69.0 U	594	115	(41-141)			51′	_	g 03/16/05	TJE
	MSE		567	109		5	(<20)	511		g 03/16/05	TJE
Trichlorofluorometh		17.3 U	532	103	(49-139)		•	511	_	g 03/16/05	TJE
7	MSE		497	96	•	7	(<20)	517	_	g 03/16/05	TJĘ
1,1-Dichloroethene	MS	17.3 U	599	116	(81-136)		<b>, ,</b>	511	_	g 03/16/05	ТÆ
, i, i Diemorocaione	MSE		573	111	(,,	4	(< 20)	511	_	g 03/16/05	TJE
Acetone	MS	173 U	1600	103	(40-141)		,,	1550	_	g 03/16/05	TJE
Accione	MSI		1810	117	( 10 1 11 )	12	(<20)	1550	_	g 03/16/05	TJE
Carbon disulfide	MS	69.0 U	800	103	(62-145)		(,	77	_	g 03/16/05	TJE
	MSE		758	98	(02110)	5	<b>(&lt;20)</b>	77		g 03/16/05	TJE
Methylene chloride	MS	69.0 U	593	115	(63-137)		( -20 )	517	_	g 03/16/05	TJE
] Mentylene cinoride	MSI		572	111	. ( 05 157 )	4	(<20):	51	_	g 03/16/05	TJE
trans-1,2-Dichloroet		, 17.3 U	565	109	(81-130)	7	( 120 ) .	517	_	g 03/16/05	TJE
lians-1,2-Dichloroet	MSE		537	104	(01-150)	5	(<20)	511	_	g 03/16/05	TJE
2-Butanone (MEK)	MS	, 173 U	1540	99	(40-135)		(120)	1550	_	g 03/16/05	TJE
2-Dutanone (MEK)	MSE		1650	106	(40-155)	7	(<20)	1550	_	g 03/16/05	TJE
2,2-Dichloropropane		, 17.3 U	584	113	(83-134)	•	( 120 )	517	_	g 03/16/05	TJE
2,2-Dicinoropropane	MSI		567	110	(03-134)	3	(<20)	517	_	g 03/16/05	TJE
1,1,1-Trichloroethan		, 17.3 U	590	114	(83-129)	3	( 20 )	517	_	g 03/16/05	TJE
1,1,1°111cinolocular	MSE		5 <b>7</b> 5	111	(03-12)	3	(<20)	517	_	g 03/16/05	TJE
1,1-Dichloroethane	MS	, 17.3 U	612	111	(73-125)	3	( 20 )	517	_	g 03/16/05	TJE
1,1-Dichtoroeulane	MSI		592	114	(75-125)	3	(<20)	517	_	g 03/16/05	TJE
ais 12 Diablamasth					( 82-124 )	3	(~20)		_	g 03/16/05	TJE
cis-1,2-Dichloroethe	ne MSI	17.3 ປັ	577 568			1	(<20)			g 03/16/05	TJE
Duama a abla u aus a abla u		, 17.3 U	568	110	(71-127)	1	(~20)	517		g 03/16/05	TJE
Bromochloromethan			582	112	(71-127)	1	(≤20)			g 03/16/05	TJE
Chlamafamus	MSE		577 621	111	(72 124)	1	(~20)		_	_	
' Chloroform		17.3 ປັ	631	122	(72-124)	o.	(-20)		_	g 03/16/05	TJE
Carbon to	MSE		620 574	120	(67 122)	. 2	(<20)		_	g 03/16/05	TJE
Carbon tetrachloride		17.3 ປັ	574 553	111	(67-133)	4	(/20)			g 03/16/05	TJE
Domanno	MSI		553	107	(06 100 )	. 4	(<20)		_	g 03/16/05	TJE
Benzene		8.98 U	604	117	(86-122)	2	(-20)			g 03/16/05	TJE
1	MSD	,	585	113		3	(<20)	517	ug/K	g 03/16 <b>955</b>	TJE



614326 614327

Matrix Spike

Matrix Spike Duplicate

Printed Date/Time Prep

Batch

03/24/2005 14:58 VXX 13340

Method Date

Vol. Extraction SW8260 Fiel

03/15/2005

Original Matrix

1051054002

Soil/Solid

	Parameter Qualifie	rs	Original Result	QC Result	Pct Recov	MS/MSD Limits	R <b>P</b> D	RPD Limits	Spike Amou		Init
_	Volatile Gas Chromato	grap	hy/Mass	Spectro	oscopy						
	1,2-Dichloroethane	MS	17.3 U	659	127	(82-136)			517	ug/Kg 03/16/05	TJE
		MSD		633	122		4	(<20)		ug/Kg 03/16/05	
-	1,1-Dichloropropene	MS	17.3 U	- 575	111	(88-131)				ug/Kg 03/16/05	
		MSD		550	106		4	(<20)		ug/Kg 03/16/05	
	Trichloroethene	MS	17.3 U	609	- 118	(77-124)				ug/Kg 03/16/05	
ì		MSD		588	113	•	4	(<20)		ug/Kg 03/16/05	
ļ	1,2-Dichloropropane	MS	17.3 U	602	116	(71-120)				ug/Kg 03/16/05	
	• •	MSD		598	116	• •	1	(<20)		ug/Kg 03/16/05	
7	Dibromomethane	MS	17.3 U	601	116	(79-128)				ug/Kg 03/16/05	
ļ		MSD		597	115		1	(<20)		ug/Kg 03/16/05	
J	Bromodichioromethane	MS	17.3 U	631	122	(79-123)				ug/Kg 03/16/05	
7		MSD		610	118	, ,	3	(<20)		ug/Kg 03/16/05	
İ	2-Chloroethyl Vinyl Ether	MS	69.0 U	893	115	(32-149)				ug/Kg 03/16/05	
!		MSD		899	116		1	(<20)		ug/Kg 03/16/05	TJE
1	1,1,2-Trichloroethane	MS	17.3 U	574	111	(81-123)		/		ug/Kg 03/16/05	TJE
		MSD		588	114		2	(< 20·)		ug/Kg 03/16/05	TJE
,	cis-1,3-Dichloropropene	MS	17.3 U	609	118	(72-126)		(,		ug/Kg 03/16/05	TJE
	on 1,5 Biomoropropens	MSD	17.5 0	588	114	( /	3	(<20)		ug/Kg 03/16/05	TJE
l	4-Methyl-2-pentanone (MIBK		173 U	2070	134 *	(80-129)	_	,		ug/Kg 03/16/05	TJE
j	· · · · · · · · · · · · · · · · · · ·	MSD	1,50	2050	132 *	( === ,	1	(<20)		ug/Kg 03/16/05	TJE
	Toluene	MS	34.5 U	551	106	(80-123)	-	( -20 )		ug/Kg 03/16/05	TJE
ŀ	10140110	MSD	3 1.3 0	550	106	( 00 1=0 /	0	(<20)		ug/Kg 03/16/05	TJE
	trans-1,3-Dichloropropene	MS	17.3 U	605	117	(65-125)	•			ug/Kg 03/16/05	TJE
	dans-1,5-Diomoropropone	MSD	17.5 0	602	116	( 05 125 )	1	(<20)		ug/Kg 03/16/05	TJE
	Tetrachloroethene	MS	17.3 U	576	111	(78-135)	•	( - 20 )		ug/Kg 03/16/05 ug/Kg 03/16/05	TJE
	Totalomorocatome v	MSD	17.5 0	573	111	( /0 155 /	0	(<20)		ug/Kg 03/16/05	TJE
	1,3-Dichloropropane	MS	17.3 U	595	115	(76-123)		( - 20 )		1g/Kg 03/16/05	TJE
	1,3-Dicinoropropane	MSD	17.5 0	616	119	( /0 125 /	3.	(<20)		ug/Kg 03/16/05	TJE
	2-Hexanone	MS	173 U	2020	130	(75-134)	•	( -20 )		1g/Kg 03/16/05	TJE
	2-Hexadone	MSD	1750	2180	140 *	(75-15-7)	7	(<20)		ug/Kg 03/16/05	TJE
	Dibromochloromethane	MS	17.3 U	598	116	(78-130)	,	( - 20 )		1g/Kg 03/16/05	TJE
	Dibiomocmoromemane	MSD	17.5 0	596	115	(70-130)	0	(<20)		ug/Kg 03/16/05	TJE
	1 1 1 2 Totrochloroothene		17.3 U	601	116	(75-125)		( \ 20 )			TJE
	1,1,1,2-Tetrachloroethane	MSD	17.5 0			(75-125)	0	(~20)		1g/Kg 03/16/05	
	1.2 Dibromosthere		17.3 U	604 608	117 117	(70-124)	0	(<20)		1g/Kg 03/16/05	TJE
	1,2-Dibromoethane	MSD	17.5 U	608		( /0~124 )	3	(< 20.)		ig/Kg 03/16/05	TJE
	Chlorobenzene	MSD MS	17.3 U	627 564	121 109	( 86-122 )		(<20)		1g/Kg 03/16/05	TJE
	Cinorobenzene	MSD	17.3 U	564 559		( 86-123 )	1.	. (<20.)		1g/Kg 03/16/05	TJE
	Éthylbenzene	MS	17211	558 597	108	(94.127)	1.	(<20)		1g/Kg 03/16/05	TJE
	Eulyloenzene		17.3 U	587	113	( 84-127 )	1	(~20)	517 U	ig/Kg 03/16/05	TJE
	•	· MSD		579	112		1	(<20)	517 u	1g/Kg 03/14/06	TJE



03/24/2005 14:58 Printed Date/Time 614326 Matrix Spike SGS Ref.# Prep Batch VXX 13340 614327 Matrix Spike Duplicate Vol. Extraction SW8260 Fiel Method Date 03/15/2005 Original 1051054002 Matrix Soil/Solid Pet MS/MSD RPD Spiked Analysis QC Original Qualifiers RPD Init Parameter Limits Amount Limits Date Recov Result Result Volatile Gas Chromatography/Mass Spectroscopy TJE P & M -Xylene MS 108 (88-124)1040 ug/Kg 03/16/05 34.5 U 1120 (< 20)ug/Kg 03/16/05 TJE MSD 1110 107 1 1040 TJE MS 17.3 U 550 106 (87-123)- 517 ug/Kg 03/16/05 o-Xylene TJE MSD 550 106 0 (<20)ug/Kg 03/16/05 MS 113 (87-124) ug/Kg 03/16/05 TJE Styrene 17.3 U 583 1 TJE (< 20)517 ug/Kg 03/16/05 MSD 579 112 Bromoform MS 110 (72-130)517 ug/Kg 03/16/05 TJE 17.3 U 572 MSD 579 112 (< 20)ug/Kg 03/16/05 TJE ΤÆ Isopropylbenzene (Cumene) MS 574 111 (90-126)ug/Kg 03/16/05 17.3 U TJE MSD 568 110 1 (< 20)ug/Kg 03/16/05 Bromobenzene MS 542 105 (66-121) 517 ug/Kg 03/16/05 TJE 17.3 U (< 20)517 TJE MSD 535 103 1 ug/Kg 03/16/05 TJE 1,2,3-Trichloropropane MS 34.5 U 577 112 (87-128)ug/Kg 03/16/05 (< 20 ) 517 TJE MSD 580 112 ug/Kg 03/16/05 TJE 1,1,2,2-Tetrachloroethane 583 (77-132)ug/Kg 03/16/05 MS 34.5 U 113 517 TJE 2 (< 20)ug/Kg 03/16/05 MSD 573 111 110 ug/Kg 03/16/05 TJE n-Propylbenzene MS 17.3 U 569 (88-131) 517 105 (< 20)517 ug/Kg 03/16/05 TJE MSD 542 2-Chlorotoluene 109 ug/Kg 03/16/05 TJE MS 17.3 U 563 (85-128)MSD 560 108 (< 20) ug/Kg 03/16/05 TJE TJE ug/Kg 03/16/05 4-Chlorotoluene MS 17.3 U 565 109 (87-126)5 (< 20)TJE MSD 539 104 ug/Kg 03/16/05 TJE 1,3,5-Trimethylbenzene MS 17.3 U 547 106 (89-128)ug/Kg 03/16/05 TJE 532 103 3 (< 20)ug/Kg 03/16/05 MSD 108 517 TJE tert-Butylbenzene MS 17.3 U 559 (89-128) ug/Kg 03/16/05 MSD 543 105 (< 20)517 ug/Kg 03/16/05 TJE 1,2,4-Trimethylbenzene TJE MS 17.3 U 529 102 (88-125)ug/Kg 03/16/05 TJE 99 3 517 MSD 512 (< 20) ug/Kg 03/16/05 (90-132)TJE sec-Butylbenzene MS 17.3 U 569 110 517 ug/Kg 03/16/05 MSD 555 107 (< 20)ug/Kg 03/16/05 TJE 1,3-Dichlorobenzene TJE MS 17.3 U 545 105 (87-121)517 ug/Kg 03/16/05 517 MSD 530 (< 20)TJE 102 3 ug/Kg 03/16/05 17.3 U 4-Jsopropyltoluene 545 105 (91-127)TJE MS 517 ug/Kg 03/16/05 MSD 523 101 (<20)517 TJE ug/Kg 03/16/05 1,4-Dichlorobenzene MS 539 104 (87-125)TJE 17.3 U 517 ug/Kg 03/16/05 MSD 519 100 (<20)ug/Kg 03/16/05 TJE MS 17.3 U 1,2-Dichlorobenzene 528 102 (85-119)ug/Kg 03/16/05 TJE 100 MSD (< 20)517 TJE 517 ug/Kg 03/16/05 n-Butylbenzene MS 17.3 U 109 566 (88-130) 517 ug/Kg 03/16/05 TJE MSD 545 105 (< 20)ug/Kg 03/16/05 TJE

Matrix Spike Printed Date/Time 03/24/2005 14:58 VXX 13340 SGS Ref.# 614326 Prep Batch Matrix Spike Duplicate 614327 Method Vol. Extraction SW8260 Fiel Date 03/15/2005 1051054002 Original Matrix Soil/Solid RPD Spiked QC Pet MS/MSD

	Parameter Qualifier	s .	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spik Amo		Init
٦	Volatile Gas Chromato	grap	hy/Mass	Spectro	oscopy	·		-			
_	I,2-Dibromo-3-chloropropane	MS	69.0 U	578	112	(81-130)			517	ug/Kg 03/16/05	TJE
		MSD		585	113		1	(<20)	517	ug/Kg 03/16/05	TJE
1	1,2,4-Trichlorobenzene	MS	34.5 U	523	101	(83-125)			517	ug/Kg 03/16/05	TJE
	<b>-,-,</b> ·	MSD		533	103		2	<b>(&lt;20)</b>	517	ug/Kg 03/16/05	TJE
	Hexachlorobutadiene	MS	34.5 U	504	97	(84-134)			517	ug/Kg 03/16/05	TJE
]		MSD		502	97		,0	<b>(&lt;20)</b>	517	ug/Kg 03/16/05	TJE
J	Naphthalene	MS	34.5 U	514	99	(79-122)		•	517	ug/Kg 03/16/05	· TJE
	1 (4)	MSD		544	105	•	6	<b>(&lt;20)</b>	517	ug/Kg 03/16/05	TIE
7	Methyl-t-butyl ether	MS	27.6 U	927	119	(85-122)			777	ug/Kg 03/16/05	TJE
j		MSD		893	115	•	4	(<20)	777	ug/Kg 03/16/05	TJE
	1,2,3-Trichlorobenzene	MS	34.5 U	535	103	(79-129)			517	ug/Kg 03/16/05	TJE
1		MSD		558	108	٠.	4	<b>(&lt;20)</b>	517	ug/Kg 03/16/05	TJE
J	Surrogates		•			`			•		
	Dibromofluoromethane <surr< td=""><td>MS</td><td></td><td></td><td>104</td><td>(83-119)</td><td></td><td></td><td>404</td><td>ug/Kg 03/16/05</td><td>TIE</td></surr<>	MS			104	(83-119)			404	ug/Kg 03/16/05	TIE
1		MSD		•	111		7		404	ug/Kg 03/16/05	TJE
	I,2-Dichloroethane-D4 <surr></surr>	MS			112	(83-122)				ug/Kg 03/16/05	TJE
	•	MSD			114		• 1		404	ug/Kg 03/16/05	TJE
1	Toluene-d8 <surr></surr>	MS			99	(87-115)		<i>‡</i>	404	ug/Kg 03/16/05	TJE
		MSD			106		6	~	404	ug/Kg 03/16/05	TIE
	4-Bromofluorobenzene <surr></surr>	MS			90	(46-133)			1080	ug/Kg 03/16/05	TJE
7.		MSD			95		6		1080	ug/Kg 03/16/05	TJE
	Batch VMS 7326					•				•	

Batch VMS 7326 Method SW8260B

Instrument HP 5890 Series II MSI VMA



	SGS Ref.# Client Name Project Name/# Matrix	614221 BGES Inc. 4th & Gambell Soil/Solid	Method Blan			Printed Prep	Date/Time Batch Mettiod Date	03/24/2005 14:58	
	•	following production 51337002, 1051337	-	004, 10513370	05, 1051337006	, 1051337007,	105133700 <b>8,</b>		
	Sample Remarks:								
	Parameter		Results	Reporting Limit	Units			Analysis Date	Init
	Solids		·		) ·	-			
الديا	Total Solids	•	100	•	%			03/15/05	JC
		SPT 5946 SM20 2540G							

614222

Duplicate

Printed Date/Time

03/24/2005 14:58

Client Name Project Name/#

BGES Inc. 4th & Gambell Prep

Batch Method Date

Original

1051337001

Soil/Solid Matrix

QC results affect the following production samples: 1051337001, 1051337002, 1051337003, 1051337004, 1051337005, 1051337006, 1051337007, 1051337008, 1051337009

### Sample Remarks:

Parameter		Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date	Init
Solids								
Total Solids		96.7	96.4	%	0	(<5)	03/15/05	JC
Batch Method Instrument	SPT 5946 SM20 2540G					·		

### SGS Environmental Services Inc. Alaska Division Level 2 Laboratory Data Report

Project: 4th & Gambell Client: BGES Inc.

	SG	S Work Order:	1051802			
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Re	leased by: (Signature)				<del></del>	
	(Printed Name)	5ha	ne Po	ston	_	
	(Title)	Axt Te	h Dir	PM	<del></del>	
			20-05		<del>_</del>	
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Contents:						
Case Narrative Chain of Custody/S Final Report Page Quality Control Sun	•					·
Note:						
Unless ofhenvise no authority, the SGS	oted, all quality assurance. Quality Assurance Progran	quality control criterian Plan, and the Nation	is in compliance with	the standards secreditation Confe	et forth by the rence.	proper regul
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This report contains	a total number of	37pages.		<i>:</i>		
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SGS Environmental Service Inc				1
	SGS	Environmental	Servid	ínc

### **Case Narrative**

**Customer: BGESINC** 

BGES Inc.

Project:

1051802

4th & Gambell

### 620146 MB

8260 ~ MB result for 1,2,3-trichlorobenzene is greater than one half the PQL. This analyte is not detected above the PQL in any of the associated samples.

### 620148 LCSD

8260 - LCSD RPD's for vinyl chloride, bromomethane, and chloroethane do not meet laboratory QC criteria. These analytes are not detected above the PQL in any of the associated samples.

### 620156 CCV

8260 - CCV result for dichlorodifluoromethane is biased low and does not meet laboratory QC criteria. The PQL for this analyte is considered estimated in the associated samples.

8260 - CCV result for acetone is biased high and does not meet laboratory QC criteria. This analyte is not detected above the PQL in any of the associated samples.

### 620158 CCV

8260 - CCV results for several analytes are biased high and do not meet laboratory QC criteria. These analytes are either not detected above the PQL in the associated samples or not reported in association with this CCV.

8260 - CCV results for dibromofiuoromethane(surr) and 1,2-dichloroethane-D4(surr) are biased high and do not meet laboratory QC criteria.



### CHAIN OF CUSTODY RECORD CT&E Environmental Services Inc.

**Laboratory Division** 



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CLIENT: 136	ES, INC.			····		CT&E	Reference	e:								PΔ	GE_	1 0	- /	
CONTACT: K	eith Guyer	PHONE N	10:(907)	544-2	900		· 1	Desperati	l (	<del></del>		<del></del>	1	<del>-  </del>			<u> </u>	<u> </u>	·	
	+ Gambell	SITE/PWS	SID#:			No	SAMPLE TYPE	Preservati Used					<del> </del>		<del> </del>		<del></del>	<b></b>	<del> </del>	<del> </del>
REPORTS TO:		FAX NO.:(	907) 64	4-290)		CONT	C= COMP	Analysis Required	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/· /	/ /	/	/	/ /	/ /	/	//	/		
INVOICE TO:	36ES	QUOTE#	BER 04-1	938- <sub>0</sub>	3 : 1	A I N E	G= GRAB		5/											
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2)	MW-Z	-	4/6/05		W	3	G	X									,			
	MW-3		416/05	18:39	W	3	G	X												
(4) V	MW-4			19:15		3	G-	X			·	, .								
(5) A-c	Tripb	long			W	3	G		·				<u>.</u>					· · · · · · ·		
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$\prod_{i=1}^{\infty}$				Are samples /	<i>USH</i> , priority, or v	w/n 72 hrs. of I	old time?	Due Date:	4-21-0	5
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					vithin 24 hrs. of he		date?	Received Tim		
-		. ميكل			ou spoken with Su				nve <b>rsi</b> on neces	sary?
			$\overline{}$	Archiving bot	tles- if req., are th	ey properly ma	ked?		AK Local Time:	
_ 4	*	No.	5-5	Are there any	problems? PM No	tified?	<u>.                                    </u>	Thermometer	ID: <u>50</u>	
_	<u></u>	<u> </u>	<u> </u>	Were samples	preserved correct	ly and <del>pi I v</del> erifi	ed?—	Cooler ID	Temp Blank	Cooler Temp
tJ	· · ·		*	Dayble	1 VOA (3)c=1	cin .	•	·		<u> </u>
					<del></del>	•	:	<del></del>	°C	°C
				If this is for P	WS, provide PWS/	D.				°C
L)		<u> </u>		Will courier ch			<del></del>		°C	°C
	· -	<u> </u>	<del></del>	Method of pa	yment?	<u></u>		*Temperate	ure reedings include them	Ometer correction factors
<u> </u>	<u> </u>	<u>.</u>	<del></del>	Data package Notes:	required? (Level:	1 / 2 / 3 / 4	)		od (circle all that apr / UPS / FedEx /	
Π -				Is this a DoD	project? (USACE, I	Navy, AFCEE)	·		ak / NAC / ERA /	
U	T	ris sec	ction i	nust be filled ou	for DoD projects (U	SACE, Navy, AR	CEE) :	Ai <i>r</i> bШ#		
	Yes .			A STATE OF THE STA				•	le Remarks: (√if	
				スペート・ファース・ユース・ダース・ダー	perature 4 ± 2°C?				Sample Volum	
	1		7	Exceptions:	, Da	mples/Analyses /	Hected:		ed Sample Volu	
			4						preserved for v filtered for diss	
			11.50			STANISM !	***		iltered for disso	
<u> </u>		74.7							ab required?	
		1 2 - 1		Rad Screen per Result:	ormed?			Forei	g <i>n</i> Soil?	
			313		pill? Note # above	in the right hand col	omn)		nust be filled if proble	was man forward
_			YI.	Was cooler seal	ed with custody seals	0		∢Yes No	The state of the s	TO DIE TOMOS
$\cap$				#/where:			<u> </u>		as client notified	of problems?
			<u></u>	Were seal(s) int Was there a CO	act upon arrival?					
		<u>:</u>			lled out properly?			Individual con	tacted: Fax / Email (c	irele one
		×		Did the COC in	dicate COE L'AFCEE	/Navý project?		22 20 20 20 20 20 20 20 20 20 20 20 20 2		Jan Dan Barran Barr
	-14		1,124	Did the COC an	d samples correspond		8.27	Reason for co	ntact:	
		- 1 · ·	न्दर्भ (क्रि. सर्वे (क्रि.)		packed to prevent br material			A		
				Were all sample	s unbroken and clear	v labeled?				
		7.7	TO THE	Were all sample	s scaled in scparate p	lastic bags?		7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
					free of headspace and		ved?	4 TOC	4	
	. <u> </u>	<u> </u>		Were correct co Is sample condi	ntainer// sample sizes	submitted		Change Order	Required?	
Ŭ. │			<u></u>		C. SRF, and custody	seals given to PM	to fax?			
								A STATE OF STATE		<u> Sar i Brancal</u>
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Completed by (sign):

Login proof (check efie): //ytived / required performed by:

| Vote | Property | Propert





SGS WO#:

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#	Container ID	Matrix	Test	8	TJB	11	500 mL	250 mL	125 mL	60 mL	40 mL	8oz (250 mL)	40z (125 mL)	Other	AG	8	HDPE	Nalgene	Cubie	Coli	Septa	Other	None	HCI	HNO,	H2SO4	MeOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	NaOH	Other
-4	A-C	1	VOC 8260							·	12				X						X			X						
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5	A-C	7	VOC8260	1_	$ \swarrow$			_			3				$>\!\!<$			<u> </u>	<u> </u>		$\times$			X						<del></del>
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Form # F004r14: 05/17/04



### Laboratory Analysis Report

200 W. Potter Drive Anchorage, AK 99518-1605 Tel: (907) 562-2343 Fax: (907) 561-5301 Web: http://www.us.sgs.com

Keith Guyer BGES Inc. P.O. Box 110126 Anchorage, AK 99511

Work Order:

Report Date:

1051802

4th & Gambell

Released by:

Client:

BGES Inc.

April 19, 2005

Digitally signed by Shane Poston Shane Poston Discon Stane Poston, C = US, OU = Discon Stane Poston, C = US, OU = SGS Anchorage, AK Date: 2005.04.20 14:11:33 -0a'00'

Enclosed are the analytical results associated with the above workorder.

As required by the state of Alaska and the USEPA, a formal Quality Assurance/Quality Control Program is maintained by SGS. A copy of our Quality Control Manual that outlines this program is available at your request The laboratory ADEC certification numbers are AK971-05 (DW), UST-005 (CS) and AK00971 (Micro).

Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by dre SGS Quality Assurance Program Plan and the National Environmental Laboratory Accreditation Conference.

If you have any questions regarding this report or if we can be of any other assistance, please call your SGS Project Manager at (907) 562-2343.

The following descriptors may be found on your report which will serve to further qualify the data.

Practical Quantitation Limit (reporting limit).

Indicates the analyte was analyzed for but not detected. U

Indicates an estimated value that falls below PQL, but is greater than the MDL. F

The quantitation is an estimation.

Indicates the analyte is found in a blank associated with the sample. В

The analyte has exceeded allowable regulatory or control limits.

GT Greater Than

The analyte concentration is the result of a dilution. D

Less Than LT

Surrogate out of control limits.

QC parameter out of acceptance range. Q

A matrix effect was present. M

The analyte was positively identified, but the quantitadon is a low estimation. JL

The analyte result is high outside of calibrated range. Ε

Note: Soil samples are reported on a dry weight basis unless otherwise specified.

200 W. Potter Dr, Anchomge AK. 99518-1605 t (907) 562-2343 f (907) 561-5301 www.us.sgs.com

SGS Ref.# Clieot Name 1051802001

Project Name/#

BGES Inc. 4th & Gambell MW-1

Client Sample ID MW

Matrix

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time 04/06/2005 18:28 04/08/2005 8:40

Technical Director

Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatog	raphy/Mass Spe	ctroscopy							
Dichlorodifluoromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Chloromethane	5.00 U	5.00	ug/L	SW8260B	, <b>C</b> ,		04/18/05	04/19/05	V
Vinyl chloride	5.00 U	5.00	ug/L	SW8260B	C,		04/18/05	04/19/05	V
Bromomethane	15.0 U	15.0	ug/L	SW8260B	C		04/18/05	04/19/05	V
Chloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,1-Dichloroethene	5.00 U	5.00	ug/L	SW8260B	·C		04/18/05	04/19/05	V
Trichlorofluoromethane	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	V
Methylene chloride	25.0 U	25.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Carbon disulfide	10.0 U	10.0	ug/L	SW8260B	C		04/18/05	04/19/05	V
Acetone	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
trans-1,2-Dichloroethene	5.00 U	5.00	ug/L	SW8260B	C	•	04/18/05	04/19/05	V
1,1-Dichloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
2,2-Dichloropropane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
cis-1,2-Dichloroethene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
2-Bntanone (MEK)	50.0 U	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Bromochloromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Chloroform	5.00 U	5.00	ug/L	SW8260B	С	,	04/18/05	04/19/05	VS
1,1,1-Trichloroethane	5.00 U	5.00	ug/L	SW8260B	· C		04/18/05	04/19/05	VS
Carbon tetrachloride	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1,1-Dichloropropene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	· VS
Benzene	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Trichloroethene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	VS
1,2-Dichloropropane	5.00 U	5.00	ug/L	SW8260B	C -		04/18/05	04/19/05	VS
Dibromomethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Bromodichioromethane	2.50 U	2.50	ug/L	SW8260B	· C		04/18/05	04/19/05	V.S
2-Chloroethyl Vinyl Ether	50.0 U	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
cis-1,3-Dichloropropene	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Toluene	5.00 U	5,00	ug/L	SW8260B	С		04/18/05	04/19/05	VS

SGS Ref.# Client Name Project Name/# Client Sample ID

1051802001 BGES Inc. 4th & Gambell MW-1

Matrix

Water (Surface, Effi, Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37 04/06/2005 18:28 04/08/2005 8:40

Collected Date/Time Received Date/Time

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chnical	Dhrector	Step

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
/olatile Gas Chromatogra	aphy/Mass Spe	ectroscopy	٠						
trans-1,3-Dichloropropene	5.00 U	5.00	ug/L	SW8260B	c		04/18/05	04/19/05	VS
1,1,2-Trichloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	·04/19/05	VS
Tetrachloroethene	1490	50.0	ug/L	SW8260B	С		04/18/05	04/18/05	V
1,3-Dichloropropane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Dibromochloromethane	2.50 U	2.50	ug/L	SW8260B	, с		04/18/05	04/19/05	VS
1,2-Dibromoethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Chlorobenzene	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1,1,1,2-Tetrachloroethane	2.50 U	2.50	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Ethylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
P & M -Xylene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Styrene	5.00 U	~ 5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Bromofoma	5.00 U	5.00	ug/L	SW8260B	·c		04/18/05	04/19/05	·V
Isopropylbenzene (Cumene)	5.00 U	5.00	ug/Ĺ	SW8260B	Ć		04/18/05	04/19/05	V
Bromobenzene	5.00 U	5.00	ug/L	SW8260B	· с		04/18/05	04/19/05	V
o-Xyleoe	5.00 U	5.00	· ug/L	SW8260B	· c		04/18/05	04/19/05	V
1,1,2,2-Tetrachloroethane	2.50 U	. 2.50	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2,3-Trichloropropane	5.00 U	<b>5.00</b>	ug/L	SW8260B	· c		04/18/05	04/19/05	V
n-Propylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
2-Chlorotomene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
4-Chlorotoluene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	VS
1,3,5-Trimethylbenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	VS
tert-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1,2,4-Trimethylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
sec-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	C ·		04/18/05		VS
4-Isopropyltoluene	5.00 U	5.00	ug/L	SW8260B	· с		04/18/05	04/19/05	VS
1,4-Diehlorobenzene	2.50 U	2.50	ug/L	SW8260B	С		04/18/05		VS
1,2-Dicblorobenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05		VS
1,3-Dichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05		VS
n-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05		VS
1,2-Dibromo-3-ohloropropane	10.0 U	10.0	ug/L	SW8260B	c		04/18/05		VS
1,2,4-Trichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05		VS

SGS Ref.# Client Name Project Name/# Client Sample ID

1051802001 BGES Inc. 4th & Gambell MW-1

Matrix

Water (Surface, Eff., Ground)

All Dates/Limes are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37 04/06/2005 18:28 Collected Date/Time

Received Date/Time Technical Director

04/08/2005 8:40 Stephen C. Ede

	Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
	Volatile Gas Chromatoara	phy/Mass Spe	ectroscopy	٠				, ,		
Lj	Hexachlorobutadiene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
	Naphthalene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
	1,2,3-Trichlorobenzene	5.00 U	5.00	ug/L	SW8260B	Ċ		04/18/05	04/19/05	VS
U	4-Methyl-2-pentanone (MIBK)	50.0 Ù	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
$\cap$	2-Hexanone	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	vs
	Methyl-t-butyl ether	25.0 U	25.0	ug/L	SW8260B	C ·		04/18/05	04/19/05	vs
	1-Chlorohexane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	· vs
	1,2-Dichloroethane	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	VS
	Acrylonitrile	50.0 U	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
	trans 1,4-Dichloro-2-Butene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
7	Vinyl acetate	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
_}	Methyl iodide	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
٦.	Surrogates			•					•	
ز	Dibromofluoromethane <surr></surr>	111		%	SW8260B	С	85-115	04/18/05	04/19/05	VS
	1,2-Dichloroethane-D4 <sun></sun>	114	•	%	SW8260B	С	72-119	04/18/05	04/19/05	VS
1	Toluene-d8 <surr></surr>	107		%	SW8260B	С	85-120	04/18/05	04/19/05	VS
ل	4-Bromofluorobenzene <sur></sur>	110		~ %	SW8260B	C	76-119	04/18/05	04/19/05	VS

SGS Ref# Client Name Project Name/# 1051802002 BGES Inc. 4th & Gambell MW-2

Cilent Sample ID

Matrix

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time 04/06/2005 18:02 04/08/2005 8:40

Technical Director

Sam	nle	Rem	arks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogo	raphy/Mass Spe	ctroscopy			•				
Dichlorodifluoromethane	2.00 U	2.00	ug/L	SW8260B	· c			04/19/05	
Chloromethane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	
Vinyl chloride	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Bromomethane	6.00 U	6.00	ug/L	SW8260B	С	-	04/18/05	04/19/05	V
Chloroethane	2.00 U	2.00	ug/L	SW8260B	С			04/19/05	V
1,1-Dichloroethene	2.00 U	<b>2.00</b> .	ug/L	SW8260B	С		04/18/05	04/19/05	
Trichlorofluoromethane	2.00 U	2.00	ug/L	SW8260B	C		04/18/05	04/19/05	
Methylene chloride	10.0 U	10.0	ug/L	SW8260B	· C	•	•	04/19/05	
Carbon disulfide	4.00 U	4.00	ug/L	SW8260B	<b>C</b>			04/19/05	
Acetone	20.0 U	20.0	ug/L	SW8260B	С			04/19/05	
trans-1,2-Dichloroethene	2.00 U	2.00	ug/L	SW8260B	С			5 04/19/05	
1.1-Dichloroethane	2.00 U	2.00	ug/L	SW8260B	C			04/19/05	
2,2-Dichloropropane	2.00 U	2.00	ug/L	SW8260B	С			5 04/19/05	
cis-1.2-Dichloroethene	2.00 U	2.00	ug/L	SW8260B	C			5 04/19/05	
2-Butanone (MEK)	20.0 U	20.0	ug/L	SW8260B	С		04/18/0	5 04/19/05	
Bromochloromethane	2.00 U	2.00	ug/L	SW8260B	. с		04/18/0	5 04/19/05	
Chloroform	2.00 Ŭ	2.00	ug/L	SW8260B	С	-	04/18/0	5 04/19/05	
1.1.1-Trichloroethane	2.00 U	2.00	ug/L	SW8260B	C		04/18/0	5 04/19/05	
Carbon tétrachloride	2.00 U	2.00	ug/L	SW8260B	С			5 04/19/05	
1,1-Dichloropropene	2.00 U	2.00	ug/L	SW8260B	С		04/18/0	5 04/19/05	
Benzene	U 008.0	0.800	ug/L	SW8260B	С	•	04/18/0	5 04/19/05	
Trichloroethene	2.00 U	2.00	ug/L	SW8260B	С		04/18/0	5 04/19/05	
1,2-Dichloropropane	2.00 U	2.00	ug/L	SW8260B	· c		04/18/0	5 04/19/05	
Dibromomethane	2.00 U	2.00	ug/L	SW8260B	С		04/18/0	5 04/19/05	
Bromodichioromethane	1.00 U	1.00	ug/L	SW8260B	, C		04/18/0	5 04/19/05	
2-Chloroethyl Vinyl Ether	20.0 U	20.0	ug/L	SW8260B	C		04/18/0	5 04/19/05	
cis-1,3-Dichloropropene	U 00.1	1.00	ug/L	SW8260B	С	•		5 04/19/05	
Toluene	2.00 U	2.00	ug/L	SW8260B	· c		04/18/0	5 04/19/05	; <b>,</b>

SGS Ref# Client Name

1051802002 BGES Inc. Project Name/# 4th & Gambell MW-2 Client Sample ID

Matrix

Water (Surface, Eff., Ground)

All Dates/Limes are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time

04/06/2005 18:02 04/08/2005 8:40

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogra	phy/Mass Spe	ctroscopy							
trans-1,3-Dichloropropene	2.00 U	2.00	ug/L	SW8260B	С	•	04/18/05	04/19/05	V
1,1,2-Tricbloroethane	2.00 U	2.00	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Tetrachloroethene	70.7	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,3-Dichloropropane	0.800 U	0.800	ug/L	SW8260B	С		04/18/05	04/19/05	ν
Dibromochloromethane	I.00 U	1.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dibromoethane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Chlorobenzene	1.00 U	1.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
1,1,1,2-Tetrachloroethane	1.00 U	1.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
Ethylbenzene	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
P & M -Xylene	4.00 U	4.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
Styrene	2.00 U	2.00	ug/L	SW8260B	C ·		04/18/05	04/19/05	ν
Bromoform	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
Isopropylbenzene (Cumene)	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	Ÿ
Bromobenzene	2.00 U	2.00	ug/L	SW8260B	C	,	04/18/05	04/19/05	٧
o-Xylene	2.00 U	2.00	ug/L	SW8260B	· C		04/18/05	04/19/05	'v
1.1.2.2-Tetrachloroethane	I.00 U	1.00	ug/L	SW8260B	· c		04/18/05	04/19/05	v
1,2,3-Trichloropropane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	ν
n-Propylbenzene	2.00 U	2.00	ug/L	SW8260B	С,		04/18/05	04/19/05	v
2-Chlorotoluene	2,00 U	2.00	ug/L	SW8260B	c ·		04/18/05	04/19/05	v
4-Chlorotolueno	2,00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	٧
1.3.5-Trimethylbenzene	2.00 U	2.00	ug/Ĺ	SW8260B	С		04/18/05	04/19/05	v
tert-Butylbenzene	2.00 U	2.00	ug/L	SW8260B	` <b>c</b>			04/19/05	v
1,2,4-Trimethylbenzene	2.00 U	2.00	ug/L	SW8260B	С			04/19/05	v
sec-Butylbenzene	2.00 U	2.00	ug/L	SW8260B	C			04/19/05	v
4-Isopropyltoluene	2.00 U	2.00	ug/L	SW8260B	c			04/19/05	v
1,4-Dichlorobenzene	I.00 U	1.00	ug/L	SW8260B	c			04/19/05	v
1,2-Dichlorobenzene	2.00 U	2.00	ug/L	SW8260B	C			04/19/05	V
1,3-Dicblorobenzene	2.00 U	2.00	ug/L	SW8260B	, c			04/19/05	V
n-Butylbenzene	2.00 U	2.00	ug/L	SW8260B	c			04/19/05	V
1,2-Dibromo-3-chloropropane	4.00 U	4.00	ug/L	SW8260B	Ċ.		04/18/05		V
1,2,4-Trichlorobenzene	2.00 U	2.00	ug/L	gW8260B	C			04/19/05	V

SGS Ref.# Client Name Project Name/#

1051802002 BGES Inc. 4th & Gambell MW-2

Client Sample ID Matrix

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37 04/06/2005 18:02 04/08/2005 8:40

Collected Date/Time Received Date/Time

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatour	aphy/Mass	Spectroscopy							
Hexachlorobutadiene	2.00 U	2.00	ug/L	SW8260B	· C		04/18/05	04/19/05	vs
Naphthalene	4.00 U	4.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
1,2,3-Trichlorobenzene	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
4-Methyl-2-pentanone (MIBK)	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	vs
2-Hexanpne	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Methyl-t-butyl ether	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1-Chlorohexane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1,2-Dichloroethane	I.00 U	1.00	ug/L	SW8260B	· C		04/18/05	04/19/05	VS
Acrylonitrile	20.0 U	20.0	ug/L	SW8260B	С	(	04/18/05	04/19/05	vs
trans 1,4-Diehloro-2-Butene	4.00 U	4.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Vinyl acetate	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Methyl iodide	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Surrogates								• •	
Dibromofluoromethane <sutt></sutt>	115	•	%	SW8260B	C	35-115	04/18/05	04/19/05	vs
1,2-Dichloroethane-D4 <sum></sum>	114 ,		%	SW8260B	C :	72-119	04/18/05	04/19/05	vs
Toluene-d8 <surr></surr>	105		%	SW8260B	C	35-120	04/18/05	04/19/05	vs
4-Bromofluorobenzene <surr></surr>	105		. %	SW8260B	\ C 3	76-119	04/18/05	04/19/05	VS

Client Name

Project Name/# Client Sample ID Matrix

1051802003 BGES Inc.

4th & Gambell MW-3

Water (Surface, Effi, Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time

04/06/2005 18:39 04/08/2005 8:40

Technical Director

Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
1 al allicco									
Volatile Gas Chromatogr	aphy/Mass Spe	ctroscopy	•						/
Dichlorodifluoromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Chloromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Vinyl chloride	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Bromomethane	- 15.0 U	15.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Chloroethane	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	VS
1,1-Dichloroethene	5.00 U	5.00	ug/L	SW8260B	С	-	04/18/05	04/19/05	VS
Trichlorofluoromethane	5.00 U	5.00	· ug/L	SW8260B	С		04/18/05	04/19/05	VS
Methylene chloride	25.0 U	25.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Carbon disulfide	10.0 U	10.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Acetone	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
trans-1,2-Dichloroethene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1.1-Dichloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
2,2-Dichloropropane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
cis-1,2-Dichlorocthene	5.00 U	5.00	ng/L	SW8260B	C .		04/18/05	04/19/05	VS
2-Butanone (MEK)	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Bromochloromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
Chloroform	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
1,1,1-Triohloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
Carbon tetrachloride	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
1,1-Dichloropropene	5.00 U	5.00	ug/L	SW8260B	C ·		04/18/05	04/19/05	VS.
Benzene	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS-
Trichloroethene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
1,2-Dichloropropane	5.00 U	5.00	ug/L	SW8260B	Ċ		04/18/05	04/19/05	vs
Dibromomethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	vs
Bromodichioromethane	2.50 U	2.50	ug/L	SW8260B	· C		04/18/05	04/19/05	. VS
2-Chloroethyl Vinyl Ether	50.0 U	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
cis-13-Dichloropropene	2.50 U	2.50	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Toluene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	vs

SGS Ref.# Client Name Project Name/# Client Sample ID 1051802003 BGES Inc. 4th & Gambell MW-3

Matrix Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time
Collected Date/Time

04/19/2005 14:37 04/06/2005 18:39

Received Date/Time Technical Director 04/08/2005 8:40 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatilė Gas Chromatogra	aphy/Mass Spe	ectroscopy	•						
trans-1,3-Dichloropropene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	V
1,1,2-Trichloroethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Tetrachloroethene	1790	50.0	ug/L	SW8260B	С		04/18/05	04/18/05	V
1,3-Dichloropropane	2.00 U	2.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Dibromochloromethane	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dibromoethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Chlorobenzene	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	v
1,1,1,2-Tetrachloroethane	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	V
Ethylbenzene	5.00 U	5.00	ug/L `	SW8260B	С		04/18/05	04/19/05	V
P & M -Xylene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	. <b>V</b>
Styrene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Bromoform	5.00 U	5.00	ug/L	SW8260B	C :		04/18/05	04/19/05	V
Isopropylbenzene (Cumene)	- 5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
Bromobenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	V
o-Xylene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	ν
1,1,2,2-Tetrachloroethane	2.50 U	2.50	ug/L	SW8260B	. с		04/18/05	04/19/05	v
1,2,3-Trichloropropane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
n-Propylbenzene	5.00 U	5.00	ug/L	SW8260B	С	•	04/18/05	04/19/05	v
2-Chlorotoluene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	v
4-Chlorotoluene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
1,3,5-Trimethylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
tert-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	v
1,2,4-Trimetbylbenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
sec-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	Ċ		04/18/05	04/19/05	V
4-Isopropyltoluene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	' V
1,4-Dichlorobenzene	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C,		04/18/05		V
1,3-Dichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05		V
n-Butylbenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	•	V
1,2-Dibromo-3-chloropropane	10.0 U	10.0	ug/L	SW8260B	C		04/18/05		V
1,2,4-Trichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C		04/18/05		VS

SGS Ref.# Client Name Project Name/# Client Sample ID 1051802003 BGES Inc. 4th & Gambell MW-3

Matrix

Water (Surface, Effi, Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time 04/06/2005 18:39 04/08/2005 8:40

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatoara	phy/Mass Spe	ectroscopy				v			
Hexachlorobutadiene	5.00 U	5.00	ug/L	SW8260B	С	•	04/18/05	04/19/05	VS
Naphthalene	10.0 U	10.0	ug/L	SW8260B	C.		04/18/05	04/19/05	VS
1,2,3-Trichlorobenzene	5.00 U	5.00	ug/L	SW8260B	C	•	04/18/05	04/19/05	VS
4-Methyl-2-pentanone (MIBK)	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
2-Hexanone	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Methyl-t-butyl ether	25.0 U	25.0	ug/L	SW8260B	С		04/18/05	04/19/05	vs
l-Chlorohexane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
1,2-Dichloroethane	2.50 U	2.50	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Acrylonitrile	50.0 U	50.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
trans 1,4-Dichloro-2-Butene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Vinyl acetate	50.0 U	50.0	ug/L	SW8260B	С	٠.,	04/18/05	04/19/05	VS
Methyl iodide	5.00 U	5,00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
surrogates					•				
Dibromofluoromethane <surr></surr>	111		%	SW8260B -	С	85-115	04/18/05	04/19/05	VS
1,2-Dichloroethane-D4 <surr></surr>	112	•	%	SW8260B	С	72-119	04/18/05	04/19/05	VS
Toluene-d8 <sun></sun>	. 107	•	%	SW8260B	С	85-120	04/18/05	04/19/05	VS
4-Bromofluorobenzene <surr></surr>	107		%	SW8260B	С	76-119	04/18/05	04/19/05	VS

SGS Ref.# Client Name 1051802004. BGES Inc.

Project Name/#

4th & Gambell

Client Sample ID MW-4

Matrix

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time

04/06/2005 19:15

Received Date/Time

04/08/2005 8:40

Technical Director

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Samp	ıe	Kem	arks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatogr	caphy/Mass Spe	ctroscopy							
Dichlorodifluoromethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Chloromethane	10.0 U	10.0	ug/L	SW8260B	C	•	04/18/05	04/19/05	V
Vinyl chloride	10.0 U	10.0	ug/L	SW8260B	C		04/18/05	04/19/05	٧
Bromomethane	30.0 Ŭ	. 30.0	ug/L	SW8260B	. <b>C</b>		04/18/05	04/19/05	v
Chloroethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,1-Dichloroethene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Trichlorofluoromethane	10.0 U	10.0	ug/L	SW8260B	·C		04/18/05	04/19/05	V
Methylene chloride	50.0 Ŭ	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	V
Carbon disulfide	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Acetone	100 Ü	100	ug/L	SW8260B	C		04/18/05	04/19/05	V
trans-1,2-Dichloroethene	10.0 U	10.0	ug/L	SW8260B	Ć		04/18/05	04/19/05	٧
1,1-Dichloroethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
2,2-Dichloropropane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
cis-1.2-Dichloroethene	10.0 U	10.0	ug/L	SW8260B	., <b>C</b>		04/18/05	04/19/05	V
2-Butanone (MEK)	100 U	100	ug/L	SW8260B	- C		04/18/05	04/19/05	٧
Bromochloromethane	10.0 ປ່	10.0	.ug/L	SW8260B	С		04/18/05	04/19/05	٧
Chloroform	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
1,1,1-Trichloroethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Carbon tetrachloride	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,1-Dichloropropene	10.0 U	10.0	ug/L	SW8260B	, <b>C</b>	·	04/18/05	04/19/05	٧
Benzene	4.00 Ŭ	4.00	ug/Ĺ	SW8260B	С		04/18/05	04/19/05	V
Trichloroethene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
1,2-Dichloropropane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
Dibromomethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	٧
Bromodichioromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	٧
2-Chloroethyl Vinyl Ether	100 ປັ	100	ug/L	SW8260B	C	•	04/18/05	04/19/05	V
cis-1,3-Dichloropropene	5.00 Ŭ	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	٧
Toluene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V

SGS Ref.# Client Name

Project Name/#

Client Sample ID Matrix

1051802004

BGES Inc. 4th & Gambell MW-4

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37 04/06/2005 19:15

Collected Date/Time Received Date/Time

04/08/2005 8:40

Technical Director

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatoor	aphy/Mass Spe	ectroscopy							
trans-1,3-Dichloropropene	10.0 U	10.0	ug/L	SW8260B	С	,	04/18/05	04/19/05	V
1,1,2-Trichloroethane	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Tetrachloroethene	372	10.0	ug/L	SW8260B	· C		04/18/05	04/19/05	V
1,3-Dichloropropane	4.00 U	4.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
Dibromochloromethane	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dibromoethane	10.0 U	10.0	ug/L	SW8260B	С	•	04/18/05	04/19/05	V
Chlorobenzene	5.00 U	5.00	ug/Ĺ	SW8260B	C		04/18/05	04/19/05	V
1,1,1,2-Tetrachloroethane	5.00 U	5.00	ug/L	SW8260B	C		04/18/05	04/19/05	V
Ethylbenzene	10.0 U	10.0	ug/L	SW8260B	C.		04/18/05	04/19/05	V
P & M -Xylene	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Styrene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
Bromoform	10.0 U	10.0	u <b>g</b> /Ĺ	SW8260B	С		04/18/05	04/19/05	V
Isopropylbenzene (Cumene)	10.0 U	10.0	ug/L	SW8260B	. C		04/18/05	04/19/05	V
Bromobenzene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
o-Xylene	10.0 U	10.0	ug/L	SW8260B	. С		04/18/05	04/19/05	V
1,2,3-Trichloropropane	10.0 U	10.0	ug/Ĺ	SW8260B	C -		04/18/05	04/19/05	V
n-Propylbenzene	10.0 U	10.0	ug/L	SW8260B	· C		04/18/05	04/19/05	V
2-Chlorotoluene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	Ţ
1,1,2,2-Tetrachloroethane	5.00 U	5.00	ug/L	SW8260B	Ċ		04/18/05	04/19/05	V
4-Chlorotoluene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,3,5-Trimethylbenzene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
tert-Butylbenzene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2,4-Trimetbylbenzene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
sec-Butylbenzene	10.0 U	10.0	ug/L	SW8260B	. C		04/18/05	04/19/05	V
4-Isopropyltoluene	10.0 U	10.0	ug/L	SW8260B	C		04/18/05	04/19/05	V
1,4-Dichlorobenzene	5.00 U	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dichlorobenzene	10,0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	. <b>v</b>
1,3-Dichlorobenzene	10.0 U	10.0	ug/Ĺ	SW8260B	С		04/18/05	04/19/05	V
n-Butylbenzene	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2-Dibromo-3-chloropropane	20.0 U	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2,4-Trichlorobenzene	10.0 U	10.0	ug/Ĺ	SW8260B	С		04/18/05	04/19/05	V

SGS Ref.# Client Name Project Name/# Client Sample ID 1051802004 BGES Inc. 4th & Gambell MW-4

Matrix

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

04/19/2005 14:37

Collected Date/Time Received Date/Time 04/06/2005 19:15 04/08/2005 8:40

Technical Director

arameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Volatile Gas Chromatoara	phy/Mass Spe	ectroscopy							
Hexachlorobutadiene	10.0 U	10.0	ug/L	SW8260B	c		04/18/05	04/19/05	V
Naphthalene	20.0 Ŭ	20.0	ug/L	SW8260B	С		04/18/05	04/19/05	V
1,2,3-Trichlorobenzene	1 <b>0.0</b> U	10.0	ug/L	SW8260B	· c		04/18/05	04/19/05	V
4-Methyl-2-pentanone (MIBK)	1 <b>00</b> U	100	ug/L	SW8260B	c		04/18/05	04/19/05	V
2-Hexanone	100 ປັ	100	ug/L	SW8260B	, c		04/18/05	04/19/05	VS
Methyl-t-butyl ether	50.0 U	50.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
1-Chlorobexane	10.0 U	10.0	ug/L	SW8260B	C		04/18/05	04/19/05	V
1,2-Dichloroethane	5.00 U `	5.00	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Acrylonitrile	100 ປັ	100	· ug/L	SW8260B	c		04/18/05	04/19/05	VS
trans 1,4-Dichloro-2-Butene	20.0 U	20.0	ug/L	SW8260B	C		04/18/05	04/19/05	VS
Vinyl acetate	100 ປ	100	ug/L	SW8260B	С		04/18/05	04/19/05	VS
Methyl iodide	10.0 U	10.0	ug/L	SW8260B	С		04/18/05	04/19/05	VS
urrogates									
Dibromofluoromethane <sun></sun>	115		%	SW8260B	С	85-115	04/18/05	04/19/05	VS
1,2-Dichlorpethane-D4 <sun></sun>	116		%	SW8260B	С	72-119	04/18/05	04/19/05	VS
Toluene-d8 <sun></sun>	106		%	SW8260B	С	85-120	04/18/05	04/19/05	VS
4-Bromofluorobenzene <sun></sun>	111		%	SW8260B	· c	76-119	04/18/05	04/19/05	VS

SGS Ref.# Client Name Project Name/# Client Sample D)

Matrix

1051802005 BGES Inc. 4th & Gambell Trip Blanks

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time

04/19/2005 14:37 04/06/2005 19:15

Received Date/Time Technical Director 04/08/2005 8:40 Stephen C. Ede

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	init
Volatile Gas Chromato	mraphy/Mass Spec	ctroscopy		•					
Dichlorodifluoromethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Chloromethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Vinyl chloride	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Bromomethane	3.00 U	3.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Chloroethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
1,1-Dichloroethene	′ 1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Trichlorofluoromethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
Methylene chloride	5.00 U	5.00	ug/L	SW8260B	В	, .	04/18/05	04/19/05	VS
Carbon disulfide	2.00 U	2.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Acetone	10.0 U	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
trans-1,2-Dichloroethene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
1,1-Dichloroethane	1.00 U	1.00	ug/L	SW8260B	В.		04/18/05	04/19/05	VS
2,2-Dichloropropane	1.00 U	1.00	ug/L	SW8260B	. В		04/18/05	04/19/05	VS
cis-1,2-Dichloroethene	1.00 U	1.00	ug/L	SW8260B	В	•	04/18/05	04/19/05	VS
2-Butanone (MEK)	10.0 U	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Bromochloromethane	1,00 Ŭ	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
Chloroform	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
1,1,1-Trichloroethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	· vs
Carbon tetrachloride	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
1,1-Dichloropropene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
Benzene	0.400 U	0.400	ug/L	SW8260B	. в		04/18/05	04/19/05	VS
Trichloroethene	1.00 U	1.00	ug/L	SW8260B	. в		04/18/05	04/19/05	vs
1,2-Dichloropropane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
Dibromomethane	- 1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	vs
Bromodichioromethane	0.500 U	0.500	ug/L	SW8260B	В		04/18/05	04/19/05	vs
2-Chloroethyl Vinyl Ether	10.0 U	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
cis-1,3-Dichloropropene	0.500 U	0,500	ug/L	SW8260B	В		04/18/05	04/19/05	VS
Toluene	1.00 U	1.00	ug/L	SW8260B	В	•	04/18/05	04/19/05	VS

SGS Ref.# Client Name Project Name/# Client Sample 1D

Matrix

1051802005 BGES Inc. 4th & Gambell Trip Blanks

Water (Surface, Eff., Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time Collected Date/Time 04/19**/**2005 14:37 04/06/2005 19:15

Received Date/Time
Technical Director

04/08/2005 8:40 Stephen C. Ede

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep	Analysis Date	Init
				•		•			
/olatil <b>e G</b> as Chromatogra	phy/Mass Spe	ctroscopy							
trans-1,3-Dichloropropene	1.00 U	1.00	ug/L	SW8260B	В.		04/18/05	04/19/05	V
1.1.2-Trichloroethane	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	7
Tetrachloroethene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	7
1,3-Dichloropropane	0.400 U	0.400	ug/L	SW8260B	В		04/18/05	04/19/05	1
Dibromochloromethane	0.500 U	0.500	ug/L	SW8260B	В		04/18/05	04/19/05	7
1,2-Dibromoethane	1.00 U	1.00	ug/L	SW8260B	. В		•	04/19/05	7
Chlorobenzene	0.500 U	0.500	ug/L	SW8260B	В		04/18/05	04/19/05	
1,1,1,2-Tetrachloroethane	0.500 U	0.500	ug/L	SW8260B	В			04/19/05	7
Ethylbenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	. 1
P & M -Xylene	2.00 U	2.00	ug/L	SW8260B	В		04/18/05	04/19/05	•
Styrene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
Bromoform	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	•
lsopropylbenzene (Cumene)	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
Bromobenzene	1.00 U	1.00	ug/L	SW8260B	В			04/19/05	
o-Xylene	1.00 U	1.00	ug/L	SW8260B	В			04/19/05	
1,2,3-Trichloropropane	1.00 U	1.00	ug/L	SW8260B	В			04/19/05	
n-Propylbenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
2-Chlorotoluene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
1,1,2,2-Tetrachloroethane	0.500 U	0.500	ug/L	SW8260B	В	•		04/19/05	
4-Chlorotoluene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
1,3,5-Trimethylbenzene	1.00 U	1.00	ug/L	SW8260B	В			04/19/05	
tert-Butylbenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
1,2,4-Trimethylbenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
sec-Butylbenzene	1.00 U	1.00	ug/L	SW8260B	В	•	04/18/05	04/19/05	
4-lsopropyholuene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
1.4-Dichlorobenzene	0.500 U	0.500	ug/L	SW8260B	В		04/18/05	04/19/05	
1.2-Dichlorobenzene	1.00 U	1.00	ug/L	SW8260B	Ŗ		04/18/05	04/19/05	
1,3-Dichlorobenzene	1.00 U	1.00	ug/L	SW8260B	В	•	04/18/05	04/19/05	•
n-Butylbenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	
1,2-Dibromo-3-chloropropane	2.00 U	2.00	ug/L	SW8260B	В		04/18/05	04/19/05	•
1,2,4-Trichlorobenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	•

BGES Inc. Client Name

Project Name/# Client Sample ID

Matrix

1051802005

4th & Gambell Trip Blanks

Water (Surface, Effi, Ground)

All Dates/Times are Alaska Standard Time

Printed Date/Time

Collected Date/Time Received Date/Time

04/19/2005 14:37 04/06/2005 19:15 04/08/2005 8:40

Technical Director

	Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
Π-	Volatile Gas Chromatogra	phy/Mass Spe	ectroscopy			•				
	Hexachlorobutadiene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Naphthalene	2.00 U	2.00	ug/L	SW8260B	В		04/18/05	04/19/05	· VS
П	1,2,3-Trichlorobenzene	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	4-Methyl-2-pentanone (MIBK)	10.0 U	10.0	ug/L	SW8260B	. В		04/18/05	04/19/05	VS
_	2-Hexanone	10.0 <b>U</b>	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Methyl-t-butyl ether	5.00 U	5.00	ug/L	SW8260B	В.		04/18/05	04/19/05	VS
	1-Chlorohexane	1.00 U	1.00	ug/L	SW8260B	B		04/18/05	04/19/05	VS
$\Box$	1,2-Dichloroethane	0.500 U	0.500	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Acrylonitrile	10.0 U	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	trans 1,4-Diohloro-2-Butene	2.00 U	2.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Vinyl acetate	10.0 U	10.0	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Methyl iodide	1.00 U	1.00	ug/L	SW8260B	В		04/18/05	04/19/05	VS
	Surrogates									
	Dibromofluoromethane <surr></surr>	111		%	SW8260B	B 8	35-115	04/18/05	04/19/05	vs
,	1,2-Dichloroethane-D4 <sun></sun>	111		%	SW8260B	` B 7	72-119	04/18/05	04/19/05	VS
	Toluene-d8 <surr></surr>	104		%	SW8260B	B 8	35-120	04/18/05	04/19/05	VS
٠ اـ	4-Bromofluorobenzene <sun></sun>	102		%	SW8260B	В 7	76-119	04/18/05	04/19/05	VS



CEERs f.#  Olie nt Nine  Proje ct Nime /#  Matrix	620146 BGES Inc. 4th & Gambell Water (Surface, 1	Method Blank		Pru Pre	p Bitch Me thod Date	04/19/2005 14:37 VXX13457 SW5030B 04/18/2005					
QC results affect the f	QC results affect the following production samples: 1051802001, 1051802002, 1051802003, 1051802004, 1051802005										
Sample Remarks: 8260 - MB resul the associated sa	t for 1,2,3-trichloroben	zene is greater t	han one half the PQI	This analyte is not deter	cted above the PQ	L in any of					
Parameter		Results	Reporting/Control Limit	Units		Date					

Volatile Gas Chromatography/Mass Spectroacopy

## SGS

CBERe f.# Old nt Nime 620146 BGES Inc.

Method Blank

Printe d'Datc/Tace Pre p 28atch l/fe tho d

Date

04/19/2005 14:37 VXX13457 SW5030B 04/18/2005

Project Nine /#
Mutrix

4th & Gambell

Water (Surface, Eff., Ground)

Parameter	Results	Reporting/Control Limit	Units		Analysis Date
Volatile Gas Chromatograph	v/Mass Spectro	scopy			
VOIACLIE GAS CHIOMACOGLAPH	7,2200				
Dichlorodifluoromethane	1.00 U	1,00	ug/L		04/18/05
Chloromethane	1.00 U	1.00	ug/L		04/18/05
Vinyl chloride	1.00 U	1.00	ug/L		04/18/05
Bromomethane	3.00 U	3.00	ug/L		04/18/05
Chloroethane	1.00 U	1.00	ug/L	·	04/18/05
Trichlorofluoromethane	1.00 U	1.00	ug/L	` .	04/18/05
1,1-Dichloroethene	1.00 U	1.00	ug/L	•	04/18/05
Methylene chloride	5,00 U	5.00	ug/L		04/18/05
Carbon disulfide	2.00 U	2.00	ug/L		04/18/05
Acetone	10.0 U	10.0	ug/L		04/18/05
trans-1,2-Dichloroethene	1.00 U	1.00	ug/L		04/18/05
1,1-Dichloroethane	1.00 U	1.00	ug/L		04/18/05
2,2-Dichloropropane	1.00 U	1.00	ug/L	<u>-</u>	04/18/05
cis-1,2-Dichloroethene	1.00 U	1.00	ug/L		04/18/05
2-Butanone (MEK)	10.0 U	10.0	ug/L	•	04/18/05
Bromochloromethane	1.00 U	1.00	ug/L		04/18/05 .
Chloroform	1.00 U	1.00	ug/L		04/18/05
1,1,1-Trichloroethane	1.00 U	1.00	ug/L		04/18/05
Carbon tetrachloride	1.00 U	1.00	ug/L		04/18/05
1,1-Dichloropropene	1.00 U	1:00	ug/L		04/18/05
•	0.400 U	0.400	ug/L		04/18/05
Benzene Trichloroethene	1.00 U	1.00	ug/L	•	04/18/05
	1.00 U	1.00	u <b>g</b> /L		04/18/05
1,2-Dichloropropane	1.00 U	1.00	ug/L		04/18/05
Dibromomethane	0.500 U	0.500	ug/L		04/18/05
Bromodichioromethane	10.0 U	10.0	ug/L		04/18/05
2-Chloroethyl Vinyl Ether	0.500 U	0.500	ug/L		04/18/05
cis-1,3-Dichloropropene	1.00 U	1.00	ug/L		04/18/05
Toluene		1.00	ug/L		04/18/05
trans-1,3-Dichloropropene	1.00 U	1.00	ug/L		04/18/05
1,1,2-Trichloroetbane	1.00 U	1.00	ug/L ug/L		04/18/05
Tetrachloroethene	1.00 U	0.400	ug/L ug/L		04/18/05
1,3-Dichloropropane	0.400 U		ug/L ug/L		04/18/05
Dibromochloromethane	0.500 U	0.500 1.00	ug/L ug/L		04/18/05
1,2-Dibromoethane	1.00 U		ug/L		04/18/05
Chlorobenzene	0.500 U	0.500			04/18/05
1,1,1,2-Tetniohloroethane	0.500 U	0.500	ug/L	·	04/18/05
Ethylbenzene	1.00 U	1.00	ug/L	•	04/18/05
P & M -Xylene	2.00 U	2.00	ug/L ug/L		04/18/05
Styrene	1.00 U	1.00	α <b>β</b> \Γ	•	23

CMERe f.#

620146

Method Blank

Client Nimo Proje ct himc /# BGES Inc.

4th & Gambell

Water (Surface, Eff., Ground)

Printe d Date / Time P re p

Bat dı Me thod VXX13457

Date

SW5030B 04/18/2005

04/19/2005 14:37

Matrix Water (Surfac	ce, Eff., Ground)			Date	04/18/2005
Parameter	Results	Reporting/Control Limit	Units		Analysis Date
Volatile Gas Chromatography	y/Mass Spectro	scopy			
Bromoform	1.00 U	1.00	ug/L		04/18/05
lsopropylbenzene (Cumene)	1.00 U	1.00	ug/L		04/18/05
Bromobenzene	1.00 U	1.00	ug/L		04/18/05
o-Xylene	1.00 U	1.00	ug/L	•	04/18/05
1,1,2,2-Tetrachloroethane	0.500 U	0.500	ug/L	•	04/18/05
1,2,3-Trichloropropane	1.00 U	1.00	ug/L		04/18/05
n-Propylbenzene	1.00 U	1.00	ug/L		04/18/05
2-Chlorotoluene	1.00 U	1.00	ug/L		04/18/05
4-Chlorotohiene	1.00 U	1.00	ug/L		04/18/05
1,3,5-Trimethylbenzene	1.00 U	1.00	ug/L		04/18/05
tert-Butylbenzene	1.00 U	1.00	ug/L	•	04/18/05
1,2,4-Trimethylbenzene	1.00 U	1.00	ug/L		04/18/05
• •	1.00 U	1.00	ug/L		04/18/05
sec-Butylbenzene	1.00 U	1.00	ug/L	```	04/18/05
4-Isopropyltoluene	0.500 U	0.500	ug/L	•	04/18/05
1,4-Dichlorobenzene	1.00 U	1.00	ug/L		04/18/05
1,2-Dichlorobenzene	1.00 U	1.00	ug/L		04/18/05
n-Butylbenzene	1.00 U	1.00	ug/L		04/18/05
1,3-Dichlorobenzene	2.00 U	2.00	ug/L		04/18/05
1,2-Dibromo-3-chloropropane	0.330F	1.00	ug/L	•	04/18/05
1,2,4-Triohlorobenzene	1.00 U	1.00	ug/L		04/18/05
Hexachlorobutadiene	2.00 U	2.00	ug/L ′		04/18/05
Naphthalene	0.540F	1.00	ug/L		04/18/05
1,2,3-Trichlorobenzene	10.0 U	10.0	ug/L		04/18/05
4-Methyl-2-pentanone (MlBK)	10.0 U	10.0	ug/L		04/18/05
2-Hexanone	5.00 U	5.00	ug/L	•	04/18/05
Methyl-t-butyl ether	1.00 U	1.00	ug/L		04/18/05
1-Chlorohexane	0.500 U		ug/L	•	04/18/05
1,2-Dichloroethane	10.0 U	10.0	ug/L		04/18/05
Acrylonitrile		2.00	ug/L		04/18/05
trans 1,4-Dichloro-2-Butene	2.00 U	10.0	ug/L		04/18/05
Vinyl acetate	10.0 U		ug/L		04/18/05
Methyl iodide	1.00 U	1.00	-8-2	•	
Sorrogate s	. /	•.			
Dibromofluoromethane <surr></surr>	111	85-115	%		04/18/05
1,2-Dichloroethane-D4 <sun></sun>	107	72-119	%		04/18/05
Toluene-d8 <sun></sun>	104	85-120	%		04/18/05
4-Bromofluorobenzene <surr></surr>	109	76-119	%	•	04/18/05

# SGS .

04/19/2005 14:37 Printe d Date / Time Method Blank 620146 VXX13457 Batch CERIC f.# sW5030B BGES Inc. Me thed Clent Mine 04/18/2005 4th & Gambell Date Proje et Nime /# Water (Surface, Effi, Ground) Analysis Mıtrix Reporting/Control Date Units Results Limit

Volatile Gas Chromatography/Mass Spectroscopy

Batch

Parameter

VMS7376

Me thod

SW8260B

Instrume nt

HP 5890 Series II MS5 VLA



04/19/2005 14:37 Printed Date/Time Lab Control Sample 620147 SGS Ref.# Batch VXX13457 Prep Lab Control Sample Duplicate 620148 SW5030B Method BGES Inc. Client Name 04/18/2005 Date Project Name/# 4th & Gambell Water (Surface, Bff., Ground) Matrix QC results affect the following production samples: 1051802001, 1051802002, 1051802003, 1051802004, 1051802005 Sample Remarks: LCS LCSD 8260 - LCSD RPD's for vinyl chloride, bromomethane, and chloroethane do not meet laboratory QC criteria. These analytes are not detected above the PQL in any of the associated samples. Analysis RPD Spiked LCS/LCSD Pet QC Date RPD Amount Limits Limits Results Recov Parameter

Volatile Gas Chromatography/Mass Spectroscopy

620147 620148 Lab Control Sample

Printed Date/Time Prep

04/19/2005

Lab Control Sample Duplicate

Batch Method

VXX13457 SW5030B

Client Name BGES Inc. Project Name/#

Matrix

4th & Gambell

Water (Surface, Eff., Ground)

Date 04/18/2005

Parameter	<del></del>	QC Results	Pet Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
olatile Gas Chromatograph	y/Mass Sp	ectrosco	)PY				•	,
Dichlorodifluoromethane /	LCS	21.0	70	(54-131)		•	30 ug/L	04/18/200
	LCSD	24.7	82		16	(< 20)	30 ug/L	04/18/200
Chloromethane	LCS	21.8	73	(56-125)			30 ug/L	04/18/200
	LCSD	25.2	84		15	(< 20 )	30 ug/L	04/18/200
Vinyl chloride	LCS	21.1	70	(50-134)	·		30 ug/L	04/18/200:
	LCSD	26.0	87		21	* (< 20.)	30 ug/L	04/18/200
Bromomethane	LCS	19.3	64	(57-141)			30 ug/L	04/18/2005
	LCSD	24.0	. 80		22	* (< 20)	30 ug/L	04/18/200
Chloroethane	LCS	18.4	61	(60-133)			30 ug/L	04/18/200:
•	LCSD	25.5	85		32	* (< 20)	30 ug/L	04/18/2005
1,1-Dichloroethene	LCS	26.8	89	(70-130)		· ·	30 ug/L	04/18/200
	LCSD	31.0	103		15	(< 20 )	30 ug/L	04/18/200
Trichlorofluoromethane	LCS	25.7	86	(72-129)			30 ug/L	04/18/2009
•	ĻCSD	27.6	92		7	(< 20)	30 ug/L	04/18/2005
Methylene chloride	LCS	23.6	79	(72-120)			30 ug/L	04/18/2005
	LCSD	26.5	88		11	(< 20)	30 ug/L	04/18/2005
Carbon disulfide	LCS	30.2	67	(37-146)			45 ug/L	04/18/2005
	LCSD	35,2	78		15	(< 20 )	45 ug/L	04/18/2005
Acetone	LCS	106	118	(51-135)			90 ug/L	04/18/2005
	LCSD	93.7	104		12	(<20)	90 ug/L	04/18/2005
rans-1,2-Dichloroethene	LCS	26.3	88	(71-127)			30 ug/L	04/18/2005
	LCSD	27.7	92		. 5	(<20)	30 ug/L	04/18/2005
, l-Dichloroethane	LCS	26.3	88	(81-120)			30 ug/L	04/18/2005
	LCSD	28.1	94		7	(< 20 )	30 ug/L	04/18/2005
2,2-Dichloropropane		25.7	86	(77-135)			30 ug/L	04/18/2005
	LCSD	26.8	89		4 .	(< 20 )	30 ug/L	04/18/2005
cis-1,2-Dichloroethene		26.9	90	(79-120)			30 ug/L	04/18/2005
	LCSD	28.7	96		7	(< 20 )	30 ug/L	04/18/2005

## SGS

04/19/2005 14:37 Printed Date/Time Lab Control Sample 620147 SGS Ref.# Batch VXX13457 Prep Lab Control Sample Duplicate 620148 SW5030B Method BGES Inc. Client Name 04/18/2005 Date 4th & Gambell Project Name/# Water (Surface, Eff., Ground) Matrix Analysis RPD Spiked LCS/LCSD Pct Date RPD Amount Limits Limits Results Recov Parameter Volatile Gas Chromatography/Mass Spectroscopy 04/18/2005 90 ug/L (67-136) 107 95.9 LCS 2-Butanone (MEK) 04/18/2005 90 ug/L (< 20) 101 LCSD 91.3 04/18/2005 30 ug/L (76-126)93 LCS 27.9 Bromochloromethane 04/18/2005 30 ug/L (< 20) 7 99 LCSD 29.8 04/18/2005 30 ug/L 88 (86-115)LCS 26.3 Chloroform 04/18/2005 30 ug/L (< 20) 94 28.1 LCSD 04/18/2005 30 ug/L (82-120) 86 LCS 25.7 1,1,1-Trichloroethane 04/18/2005 30 ug/L (< 20) 92 LCSD 27.6 04/18/2005 30 ug/L (79-132) 85 25.5 LCS Carbon tetrachloride 04/18/2005 30 ug/L (< 20) 91 LCSD 27.3 04/18/2005 30 ug/L (80-121) 94 LCS 28.1 1,1-Dichloropropene 04/18/2005 30 ug/L 0 (< 20)28.2 94 LCSD 04/18/2005 30 ug/L (84-115) 90 LCS 27.1 Benzene 04/18/2005 30 ug/L (<20)2 92 LCSD 27.6 04/18/2005 30 ug/L (82-118) 92 LCS 27.5 Trichloroethene 04/18/2005 (< 20) 30 ug/L 1 93 LCSD 27.9 30 ug/L 04/18/2005 (88-115) 97 LCS 29.0 1,2-Dichloropropane 04/18/2005 (<20) 30 ug/L 1 98 LCSD 29.4 04/18/2005 30 ug/L (86-119) LCS 96 28.9 Dibromomethane 04/18/2005 (<20) 30 ug/L 1 LCSD 29.2 97 04/18/2005 30 ug/L (81-120) 92 LCS 27.7 Bromodichloromethane 04/18/2005 30 ug/L (<20) 0 93 LCSD 27.8 04/18/2005 45 ug/L (63-148) LCS 52.5 117 2-Chloroethyl Vinyl Ether 04/18/2005 (<20) 45 ug/L 1 LCSD 53.2 118 04/18/2005 30 ug/L LCS 32.3 108 (90-126)cis-1,3-Dichloropropene 30 ug/L 04/18/2005 (< 20)3 105 LCSD 31.4 04/18/2005 30 ug/L 29.2 97 (81-115) LCS Toluene 28

620147

Lab Control Sample

620148 Lab Control Sample Duplicate

BGES Inc. Client Name Project Name/#

4th & Gambell

Printed Date/Time Prep

04/19/2005

14:37

Batch

Mediod

VXX13457 SW5030B

Date

04/18/2005

Parameter	QC Results	Pot Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatogra	nhw/Mage Spectross	CODY			•		
7018C11E Gas Chiomacogia	phy/mass opecial		į.		,		
	LCSD 28.6	95		· 2	(< 20)	30 ug/L	04/18/2005
	LCS 29.7	99	(89-125)			30 ug/L	04/18/2005
rans-1,3-Dichloropropene	LCSD 28.8	96	(83-123)	3	(< 20 )	30 ug/L	04/18/2005
	LC3D 20.0				(-20)	50 ag. D	0 1/10/200
,1,2-Trichloroethane	LCS 28.5	95	(86-116)			30 ug/L	04/18/2005
	LCSD 28.3	94		1	(< 20 )	30 ug/L	04/18/2003
			>				
Tetrachloroethene	LCS 27.2	91	( <i>7</i> 9-117)	_		30 ug/L	04/18/2005
	LCSD 27.0	90		<b>, 1</b>	(< 20 )	30 .ug/L	04/18/2005
,3-Dichloropropane	LCS 28.1	94	(86-118)			30 ug/L	04/18/2005
.j-Diemoropropuno	LCSD 27.7	92		2	(< 20)	30 ug/L	04/18/2005
Dibromochloromethane	LCS 29.2	97	(88-116)			30 ug/L	04/18/2005
	LCSD 28.8	96		1	(< 20 )	30 ug/L	04/18/2005
	LCS 29.0	97	(86-119)			20 11-7	04/18/2005
1,2-Dibromoethane	LCS 29.0 LCSD 28.9	96	(80-119)	0.	(< 20)	30 ug/L 30 ug/L	04/18/200:
/	LCSD 26.9	90		•	(420)	30 ug/L	0-7/10/200.
Chlorobenzene	LCS 27.9	93	(88-115)			30 ug/L	04/18/2005
•	LCSD 27.8	93	•	0	(< 20 )	30 ug/L	04/18/2005
1,1,1,2-Tetrachloroethane	LCS 27.2	91	(90-116)	`.	(-20)	30 ug/L	04/18/2005
	LCSD 28.2	94		<b>4</b>	(< 20 )	30 ug/L	04/18/2005
Ethylbenzene	LCS 28.2	94	· (85-120)			30 ug/L	04/18/2005
<b>24.</b> ) <b>1.00.1</b> _0.1.0	LCSD 28.6	95		2	(< 20 )	30 ug/L	04/18/2005
P & M -Xylene	LCS 56.3	94	(80-120)			60 ug/L	04/18/2005
	LCSD 56.8	95		1	(< 20 )	60 ug/L	04/18/2005
<b>7.</b>	LCS 30.0	100	(84-129)	•		30 ug/L	04/18/2005
Styrene	LCSD 30.7	102	(04-125)	2	(< 20)	30 ug/L 30 ug/L	04/18/2005
•	ECOD 30.7			-	( =- /		,
Bromoform	LCS 28.0	93	(85-126)		•	30 ug/L	04/18/2005
•	LCSD 29.0	97		3 .	(< 20)	30 ug/L	04/18/2005
	TOD - 55.41		(80.100)				04110100
Isopropylbenzene (Cumene)	LCS 27.6 LCSD 28.7	92 96	(80-120)		(<20)	30 ug/L 30 ug/L	04/18/2005 04/18/2005

Lab Control Sample 620147

Lab Control Sample Duplicate 620148

Printed Date/Time

Ргер Batch

Method Date

14:37 04/19/2005

VXX13457 SW5030B

Client Name	BGES hc.						Method Date	SW5030B 04/18/2005	
Project Name/#	4th & Gambell	Dec . C	_4\						
Matrix	Water (Surface,		QC	Pet	LCS/LCSD	RPD	RPD Limits	Spiked Amount	Analysis Dale
Parameter	<u> </u>		Results	Recov	Limits		Dunie		
Volatile Gas Chr	/\	loce Sn	ectrosco	עמכ	•				,
Volatile Gas Chr	omacography/	•						30 ug/L	04/18/2005
Bromobenzene	r		31.6	105	(87-115)	,	(< 20 )	30 ug/L 30 ug/L	04/18/2005
•		LCSD	29.7	99		6	(~20)	30 ug/2	0 11 10, 2000
•		T C5	27.6	92	(80-120)			30 ug/L	04/18/2005
o-Xylene		•		95	(00 120 )	. 3	(< 20)	30 ug/L	04/18/2005
		LCSD	28.6	93		-	• •	•	
1,2,3-Trichloropropane		LCS	33.2	111	(86-118)			30 ug/L	04/18/2005
1,2,5-111cmotopropane			31.7	106		5	(< 20 )	30 ug/L	04/18/2005
÷	•	Doop	<b>51</b>					"	04/10/2005
n-Propylbenzene		LCS	31.7	106	(87-123)			30 ug/L	04/18/2005
		LCSD	30.0	100		. 5	. (< 20)	30 ug/L	04/18/2005
					(05 101)			30 ug/L	04/18/2005
2-Chlorotoluene		LCS	31.5	105	(85-121)	6	(<20)	30 ug/L	04/18/2005
· ·		LCSD	29.8	99		U	(-20)		
	;	T 00	32.7	109	(80-123)			30 ug/L	04/18/2005
1,1,2,2-Tetrachloroeth	ine	LCS			(00-120)	8	(< 20)	30 ug/L	04/18/2005
•	•	LCSD	30.2	101		=			
4 Oblancialuna		LCS	30.8	103	(81-126)			30 ug/L	04/18/2005
4-Chlorotoluene		LCSD		97		5	(<20)	30 ug/L	04/18/2005
		רנטט	27.2	•				4	04/10/2005
1,3,5-Trimethylbenzer	ie	LCS	31.9	106	(87-118)			30 ug/L	04/18/2005
1,0,0 11		LCSD	30.6	102		4	(< 20)	30 ug/L	04/18/2005
			•	•	(04.01)			30 ug/L	04/18/2005
tert-Butylbenzene		LCS	34.4	115	(86-121)	10	(<20)	30 ug/L	04/18/2005
		LCSD	31.1	104	· .	10	(~20)	JU UEID	, 0
		7.00	21.0	103	(87-117)			30 ug/L	04/18/2005
1,2,4-Trimethylbenzer	ne · .	LCS	31.0	103	(0/-11/)	3	(< 20)	30 ug/L	04/18/2005
i		LCSD	30.2	101			` '	-	
sec-Butylbenzene		LCS	33.6	112	(88-125)			30 ug/L	04/18/2005
sec-Butyloenzene		LCSD		105		6	(<20)	30 ug/L	04/18/2005
	_ · ·	בכט	21.0	•••			•		
4-Isopropyltoluene		LCS	32.6	109	(83-119)			30 ug/L	04/18/2005
- • •	•	LCSD	31.1	. 104		. <b>5</b>	(< 20 )	30 ug/L	04/18/2005
	•	•					•	30 ug/L	04/18/2005
1,4-Dichlorobenzene		LCS	31.4	105	(82-121)	•	(~ 20 <b>)</b>	30 ug/L 30 ug/L	04/18/2005
•	LCSD 30.5 102 3		(< 20)	30 mR/T	UT/ 10/2003				
		T.C.C	28.9	96	(86-114)		,	30 ug/L	04/18/2005
1,2-Dichlorobenzene	•	LCS	28.9	96	(00-11-7)	0	(<20)	30 ug/L	04/18/2005

620147 Lab Control Sample

620148

Lab Control Sample Duplicate

Client Name

trans I,4-Dichloro-2-Butene

LCS

69.2

154

(80-171)

BGES Inc.

Printed Date/Time Ргер

04/19/2005

Batch Method VXX13457 SW5030B

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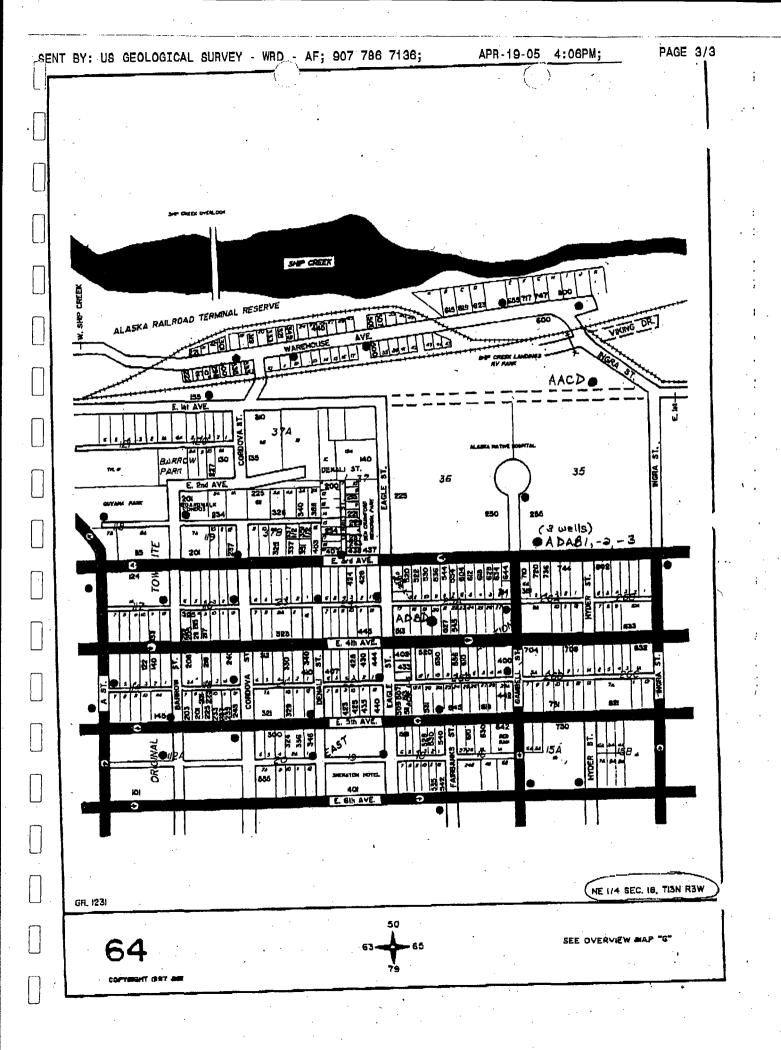
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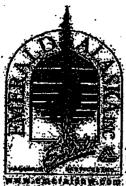
45 ug/L

Date

04/18/2005

Matrix Water (Sur	face, Effi, Ground)						
Parameter	QC Resuli	Pet s Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatograp	hy/Mass Spectr	оѕсору	ζ,		·		
1,3-Dichlorobenzene	LCS 30.5	102	(83-118)			30 ug/L	04/18/200
	LCSD 29.7	99		3	(< 20)	30 ug/L	04/18/200
n-Butylbenzene	LCS 31.3	104	(83-130)		•	30 ug/L	04/18/200
·	LCSD 30.5	102		3	(< 20)	30 ug/L	04/18/200
1,2-Dibromo-3-chloropropane	LCS 28.1	94	(80-122)			30 ug/L	04/18/200
	LCSD 28.8	. 96		3	(< 20)	30 ug/L	04/18/200
1,2,4-Trichlorobenzene	LCS 31.5	105	(85-120)			30 ug/L	04/18/200
•	LCSD 28.9	. 96		9	(< 20 )	30 ug/L	04/18/200
Hexachlorobutadiene	LCS 31.0	103	(81-126)			30 ug/L	04/18/200
•	LCSD 30.8	103	•	1 .	(< 20 )	30 ug/L	04/18/200
Naphthalene	LCS 30.1	100	(82-126)			30 ug/L	04/18/200
	LCSD 26.7	89		12	(< 20 )	30 ug/L	04/18/200
1,2,3-Trichlorobenzene	LCS 33.0	110	(86-124)		•	30 ug/L	04/18/200
•	LCSD 28.2	94		16	(< 20)	30 ug/L	04/18/200
4-Methyl-2-pentanone (MIBK)	LCS 92.3	103	(73-134)			90 ug/L	04/18/200
	LCSD 97.4	108		5 .	(< 20)	90 ug/L	04/18/200
2-Hexanone	LCS 90.2	100	(76-130)			90 ug/L	04/18/200
·	LCSD 92.8	103	,		(< 20)	90 ug/L	04/18/200
Methyl-t-butyl ether	LCS 41.6	93	(83-119)			45 ug/L	04/18/200
	LCSD 46.1	103		10	(< 20 )	45 ug/L	04/18/200
1-Chlorohexane	LCS 43.5	97	(75-125)			45 ug/L	04/18/200
	LCSD 43.6	97	.•	. 0	(< 20)	45 ug/L	04/18/200
1,2-Dichloroethane	LCS 27.6	92	(82-119)			30 ug/L	04/18/200
	LCSD 27.7	92		0 .	(<20)	30 ug/L	04/18/200
Acrylonitrile	LCS 45.7	102	(83-122)			45 ug/L	04/18/200
-	LCSD 49.9	111		9	(<20)	45 ug/L	04/18/200





Bucreld Alaske Inc 400 Bast Ship Creek Anchorage, AE 99501 W. W. W. Chief R. E. Com. (907) 258-3049

Facsimile Transmittal Sheet
Total Number of Pages (including cover sheet): \_\_\_\_ Date: Rhonda Strucher, Businoss Development From: To: Company: Phone Number: Fax Number: 6962439 Message

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i	17.	Tra	nsporter i	Acknowled	1A A		int of Mat	erials	L		9 4	an 1		<u>e/</u>	Ma	دمرد	1-	<u>a</u> <	TTH	0
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	20.	Fac	lilty Owne	r or Operat	on Cart	fication o	of receipt	os hazaro	lous itt	aterials (	overed b	y this n	nanif	est axc	ept as n	oted in	Itom 19	).		



Genera	ntor: Alaskan Real Estate		<b>U</b>	J.S. E.P	A. I.D. #: AKR000201874
Profile	#: <u>USE17614</u>	·.	. 1	Manifes	st #: <u>0331</u>
Standard Pursuan	is specified in Part 268, Sobject Do at to 40CFR 256.7(a), the required inf Treat (Wastewaters contain	r do no bunation ability tog /ec	t meet the applicable prohibition on applicable to each waste is ide Group:   Wastewater  than 1% filterable solids and lesses	levels sp miffied b Non-W ss than 1	astewater
. 0	D001 Ignitable (except for high TO D001 High TOC Ignitable (Greater	co <i>nslite</i> C) nuu than 10	vents naed not be addressed ty the utged in CWA/CWA-equivalent ( 0% organic carbou)	waste is /Class I	s to be combusted or recovered.) SDWA, systems
	D002 Corrosive managed in non- D002 Conosive nunaged in CWA/ D003 Reactive Sulfides based on 20	CWA⊣	cquivalcht /Class I systems	s I SDW	A systems (Complete Form U.C.)
	D003 Reactive Cyanides based on 2	61.23	a)(5)		
	systema (Complete Form U.C.)				Vnon-CWA-equivalent/non-Class I SD\
00	D003 Water Reactives based on 26 D003 Ottier Reactives based on 26	1.23(a) 1.23(a)	(2), (3) and (4) managed in CWA (1)	VCWA-	equivalcat /Class I SDWA systems
If D004 be coan	-D043 boxes are circcked, complete aged in a CWA/CWA-equivalent/Cla	e and a ss I SI	ttach Fram U.C. to address under	riying ba	zardons constituents (unless these wastes
	D004 Arsenic D005 Barium		D018 Renzene	. —	D032 Hcxaclulorobenzeae
	D006 Cadmimn		D019 Carbon Tetrachloride D020 Chlordane		D033 Hexacillorobutadiene D034 Hexacilloroethane
	D007 Chrolniam		13021 Chlorcbsuzene		D035 Methyl Ethyl Ketone
	Doog Lead		D022 Chloroform		D036 Nitrobenzene
8	D009 Mercury (< 260ppm; nen-RI D009 Mercury (< 260ppm; RB)	) L	D023 o-Cresol		D037 Fernachlorophenol
	D009 Mercuty > 260ppm; non-RK	מ			•
	D009 Mercury (> 260 ppm; RR)				
	D010 Selenium		D024 m-Cresol		D038 Pyridine
	D011 Silver D012 Endrin		13025 p-Cessoi D026 Cresols (Total)		D039 Tetrachloroedgilene D040 Dichloroeilfylene
	D013 Lindane	ō	D027 p-Dichlorobermene		D040 Enchoroentylene  D041 2,4,3-Tricinocophenol
				<u>-</u>	D042 2,4,6-Trichlorophenol
	D015 Toxaphene		,,		D043 Vinyl Chloride
	D016 2,4-D D017 2,4,5-TP (Silvex)		D030 2,4-Dinitrutohiene D031 Heptachlor		
In_addi	tion, the following wastes are includ	ed in th	is shipment:		·
	F001 - F005 Spem Solvents. (If the	iis box	is checked, complete F001-F005	section	an the back of this form. Check the haza
•	nuntber(s) that apply and identify i	he con	stiments likely to be presem in di	ie waste.	)
	Contaminated Soil that means the ?	KOO 210 *** 9(1)	is cueched, complete and attac	n Form	U.C. to identify the tudividual constitux is disched, complete the Comamutated
	section on the back of this finn.)		•		• .
	Hazardous Debris (If this box is ch	ecked,	complete the Hazardous Debris	section o	on the back of this form.)
			are not addressed above, idonif		·.